BIBLIOGRAPHY OF ROAD-MAKING AND ROADS IN THE UNITED KINGDOM

DOROTHY BALLEN

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STUDIES IN ECONOMICS AND POLITICAL SCIENCE

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BIBLIOGRAPHY OF ROAD-MAKING AND ROADS IN THE UNITED KINGDOM.

BIBLIOGRAPHY OF ROAD-MAKING AND ROADS IN THE UNITED KINGDOM

BY

DOROTHY BALLEN.

WITH AN INTRODUCTION BY

SIR GEORGE GIBB,

Chairman of the Road Board.

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COMPILER'S NOTE.

No originality is claimed for the research of which the results are embodied in the following pages. It was undertaken at the suggestion of Professor Sidney Webb, in view of the recent revival of interest in highway problems due to the Development Act of 1909, and is merely a revised and considerably enlarged edition of the Bibliography compiled by Mr. and Mrs. Webb in 1906. During the years 1907–1911 Professor Webb had amassed a quantity of notes for incorporation in the second edition of the Bibliography; and I am indebted to him not only for these notes, which he transferred to me at the beginning of my task, but for further notes and valuable suggestions during the progress of the work.

At an early stage in the work, it became evident that a complete record of the literature of British and Irish roads would be undesirably bulky. It was therefore decided to omit certain classes of documents, viz.:

(1) The Ordnance Survey maps, official catalogues of which are available.

(2) Guide-books not intended primarily for travellers by road, and published after 1850.

(3) Local Acts of Parliament relating to turnpike roads, bridges, and streets. For those issued between 1800 and 1900 a good index has been issued by the Government; while those of earlier date are listed, and many given in full, in Danby Pickering's edition of the statutes.

(4) Annual reports of Surveyors and of Highway Committees.

With the exception of these groups, the bibliography is as nearly complete as the materials within reach would allow. The British Museum Catalogues have proved invaluable, especially in the historical sections, while that of the Patent Office Library has supplied the greater part of the section on road construction and repair. In addition to the catalogues of these two libraries and of the British Library of Political Science, the following are the principal sources which have been consulted in the course of the work:

Anderson, J. P. Book of British Topography. 1881.

Bibliographia Economica Universalis, 1902–1912.

Bibliographie der Sozialwissenschaften, 1905 *et seq.*

Borght, R. van der. Verkehrswesen. 1894.

Byrne, Austin T. Treatise on Highway Construction. 1892.

Engineering Magazine. Indexes to Engineering Periodicals, 1888–1912.

Frost, Harwood. Art of Road-Making. 1910.

Gillespie, W. M. Manual of . . . Road-Making, 10th ed. 1871.

Galloupe, F. E. Indexes to engineering periodicals, 1883–87.

Greenwood, E. Classified guide to technical and commercial books. 1904.

Jenkins, Rhys. Guide to the Literature of Power Locomotion on the Highway. 1896.

King, P. S., and Son. Lists of London County Council Papers.

Literatur des Bau- und Ingenieur-Wesens der letzten 30 Jahre, hrsg. von A. Malberg. 1852.

Local Government Review, 1909 *et seq.*

McCulloch, J. R. Literature of Political Economy. 1845.

Municipal Affairs. Bibliography of municipal problems and city conditions. 1901.

Nelson, Thomas, and Sons. Standard Books. 1910–11.

New York State Library. Selections from the best books of 1900–09 (annual).

Osthoff, G. Klinker und Klinker-Strassen. 1882.

Petsche, A. Le bois et ses applications au pavage. 1896.

Pratt, Edwin A. History of Inland Transport and Communication in England. 1912.

Reader's Guide to Periodical Literature, 1905–12.

Review of Reviews Index to Periodical Literature, 1890–1902.

Sonnenschein, W. S. Best Books, 2nd ed., and Reader's Guide to Contemporary Literature. 1894.

U. K. Govt. Indexes to Parliamentary Papers, 1696–1912.

DOROTHY BALLEN.

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INTRODUCTION

THE proper attitude of mind towards a bibliography is one of simple gratitude. This is especially the case if information on the subject is only to be found in the unfrequented byeways of knowledge. Search for authorities and references then becomes dull, laborious and uncertain, and any work which facilitates or lightens this labour of research is assured of welcome. The indebtedness of students of English Local Government to the London School of Economics and to the zealous workers inspired by the School is already great, and Miss Dorothy Ballen has now added another modest and useful volume to the long list for which students in many departments of public administration are truly thankful.

Roads after being neglected for the greater part of a century have suddenly become objects of great concern and importance. Public interest in them is keen and general. To what new uses can they be put? How should they now be made and maintained? How should they be administered? How can the needs and convenience of the various groups of road users be met and reconciled? What will be the ultimate cost and economic advantage of adapting roads

to the requirements of power-driven vehicles? and the inevitable and comprehensive question, who should pay are all questions which are eagerly discussed at the present time. They present problems which are by no means easy to solve, but the significant point for my present purpose is that these problems are not new, though the circumstances which have brought them into fresh discussion are of quite recent occurrence. Our forefathers were perplexed by problems essentially similar to those which have arisen in our time; it is important, therefore, that in our consideration of these questions we should not neglect the lessons of the past. If we are to reach a true comprehension of the existing situation in regard to roads we must study the history of roads. No one can hope to understand or explain why road administration is what it is if they do not know how it has grown up. It is only by the light of historical enquiry that its peculiarities become intelligible. But until quite recently, historical knowledge on the subject was rare and information was difficult to trace. It was also obscure and uncertain even when traced. Before Mr. and Mrs. Sidney Webb compiled a small bibliography of roads in 1906, as a preparation for their lucid and admirable "Story of the King's Highway," published only a few months ago, the field which the student of English highways had to explore was a trackless wilderness.

Miss Ballen has carried bibliographical research

a step further. Her enlarged and complete bibliography reveals in fuller detail the great mass of literature about roads which has lurked in the recesses of libraries, and provides a sectionised list of books, pamphlets, Bills, Acts of Parliament, and maps which ought to satisfy the needs of the most industrious student of the subject.

Miss Ballen has attempted to classify the contents of her bibliography under the general headings of (1) History and Description; (2) Administration; (3) Engineering; (4) Traffic. But road books do not readily lend themselves to classification according to modern ideas. Writers on roads are a discursive class, and it may be useful to warn students in search of references that they will not be able safely to omit examination of the entries in each group of the classification.

A mere perusal of Miss Ballen's bibliography and of the dates and titles of the books written, taking due notice of the dates when books were not written, is sufficient to afford a good deal of enlightenment. It is not too much to say that the evolution of the road can be traced from the bibliography. The appearance on the road of each new user heralded an outburst of literary and legislative activity, and created a situation similar in principle to that which has been created by the motor traffic of to-day. The literature of the past, like that of to-day, embodies a prevailing tone of discontent. Its classification would be amongst the lamentations. The road user has

always been an impatient and intolerant person in speech, though pathetically tolerant and long-suffering in conduct. Few writers come to praise either the conditions of the roads or their administration. Yet we have, and, though chary of saying it, we know that we have in Great Britain a most admirable, highly practical and singularly complete system of roads. How did we get it? Who made it? It is difficult to answer these questions. Our roads, speaking generally, were not made; they grew. Hence the need of history for comprehension and the value of Miss Ballen's bibliography.

The historical period of roads opened in 1555, when the first Highway Act was passed by Parliament. Statute labour by parishioners was then established, and this remained substantially the sole legal source of public contribution to the maintenance of highways for three centuries. About the same time wheeled vehicles for passengers were introduced, and slowly, but surely, the troubles of the road-maker advanced.

The earliest road user was, no doubt, the pedestrian, whether man, sheep, or pig. Then followed in due succession private carriages, commencing as rare novelties in the middle of the sixteenth century, and increasing very slowly at first and afterwards rapidly. Long waggons were introduced after 1564; coaches for the wealthy classes in London and other towns from 1580 onwards; hackney coaches mainly in towns from

the beginning of the seventeenth century; stage coaches from the middle of the seventeenth century. So that it took the greater part of a century for travelling in coaches to extend from the gentry to the people.

The development of travelling by coach soon led to fierce discussions and struggles between those who wanted roads suitable for coaches and people of narrow parochial minds and niggardly propensities who objected to the damage done by coaches to the soft dirt tracks which alone represented roads down to the opening of the nineteenth century. Then came the development of turnpike roads, starting with the first turnpike gate—erected in 1663 in Hertfordshire—a significant step which led ultimately to the creation in England of upwards of 20,000 miles of turnpike roads, which in their turn led to the quickening of coach travel, culminating, towards the end of the eighteenth century, in mail coaches and the services, quite wonderful in their time, which these afforded. And now the motor-car has appeared, reviving some of the old struggles.

The bibliography guides us not only through the records of the making of roads and the changes which have occurred in the character of road traffic, but also through the history of the prolonged struggle, not yet ended, between the general public who want roads for their use and convenience and the owners of land or the owners of rateable property who have never, except

under coercion, acquiesced in the principle that it is their duty to maintain roads to serve national requirements. Sir Henry Parnell, in his "Treatise on Roads," published in 1833, expresses a hope that he may be able "to give a better tone to the ideas of those country gentlemen who are but trustees of the interest of the public in road concerns, and encourage them to form a larger and more correct conception of their duties and their responsibilities." But the country gentlemen were stiff. They have always refused either to be coaxed or coerced into performing a duty which according to their view rested not upon them but upon the Government, and the Government have, since the earliest times, halted between two opinions. They allowed roads to suffer rather than take effective steps to secure their proper maintenance.

But this is not the place to discuss the merits or the solutions of road problems, and I will only recommend people interested in those problems to take advantage of the mass of material to which they can now gain access, without an excessive amount of labour, through the compilation for which we are indebted to the London School of Economics and to Miss Dorothy Ballen, whose work has been done with a completeness which deserves the highest commendation.

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Those documents marked by an asterisk in the left-hand margin are in the British Library of Political Science. Wherever possible, the British Museum number has also been given. When neither library possesses a work, but a copy is known to exist elsewhere, the name of the library in which it is preserved is given.

BIBLIOGRAPHIES

Gillespie (William Mitchell) Manual of . . . road-making. 1845. (p. 166.) (10th ed.) 1871. pp. 5–6.

***McCulloch (J. R.)** The literature of political economy . . . 1845. 8vo, pp. xvi., 407.
Chapter on roads, canals, railroads, etc., pp. 198–209.

Malberg (A.) (*ed.*) Literatur des Bau und Ingenieur-Wesens der letzten 30 Jahre. Berlin. 1852. 8vo. pp. 124–135.

***Anderson (J. P.)** Book of British topography: a classified catalogue of the topographical works in the library of the British Museum relating to Great Britain and Ireland. 1881. 4to, pp. 472. 821.m.5.

Osthoff (George) Die Klinker und die Klinker-Strassen. 1882. (p. 204) p. 51.

Perels (E.) Handbuch des landwirthschaftlichen Transportwesens. 1882. (p. 7.)

Macfadzean (James) The parallel roads of Glenroy. 1883. (p. 137) pp. xx.–xxi.

Galloupe (F. E.) Index to engineering periodicals, 1883–87. 1888. 8vo. 2022.a.

Baumeister (Reinhold) Städtisches Strassenwesen und Städtereinigung. 1890. (p. 195) pp. 159–160.

Barkhausen (Georg), Nessenius, Housselle (W.) Erdarbeiten: Strassenbau: Brückenbau. 1892. (p. 171) References scattered throughout.

Byrne (Austin T.) Treatise on highway construction. 1892. (p. 171) pp. iii.–vi.

***Sonnenschein (W. S.)** Best Books, 2nd ed. Reader's Guide to Contemporary Literature. 1894. Sections E. III. 16–20 (topography) D. V. 67 (law of highways), I. II. 6 (road-making).

Boston Public Library Bulletin. Bibliography of roads. Jan., 1895.

Providence Public Library Bulletin. Bibliography of roads. July, 1895.

Willmann (Leo von) Strassenbau . . . 1895. (p. 173) Scattered references throughout.

Jenkins (Rhys) Power locomotion on the highway: a guide to the literature relating to traction engines and steam road rollers, and to the propulsion of common road carriages by steam and other mechanical power; with a brief historical sketch. 1896. 8vo. pp. 64.

Petsche (Albert) Le bois et ses applications au pavage. 1896. (p. 214) pp. 480–481.

Genzmer (Ewald) Die städtischen Strassen . . 1897. (Bibliography at end of each part.)

***Brooks (Robert C.)** A bibliography of municipal problems and city conditions. (*Municipal Affairs.* March.) New York. 1901. 8vo. pp. viii, 346.

Forbes (Urquhart A.), and **Burmester (A. C.)** Our Roman highways. 1904. (p. 26), pp. 252–254.

***Greenwood (Edgar)** Classified guide to technical and commercial books . . (Section 59—Roads, Highways. pp. 187–188) 1904. 8vo, pp. xii, 216.

***Webb (Sidney** and **Beatrice)** Bibliography of road-making and maintenance in Great Britain. (Roads Improvement Association) 1905. 8vo. pp. 35. BB.E.c.4.

Paul (E. M.) Manual of road construction and maintenance. 1908. 1-page Bibliography.

***Frost (Harwood)** Art of road-making. 1910. (p. 184), pp. 505–533.

***Nelson (Thomas & Sons)** Standard Books. 4 vols. 1910–11.

A. 423–766. History and topography of counties of United Kingdom.

C. 212–323. Geography and travel, United Kingdom.

D. 521. City traffic.

N. 228–234. Engineering : roads ; town planning.

***Pratt (Edwin A.)** History of inland transport and communication in England. 1912. (p. 49) pp. 514–521.

GENERAL WORKS

1. History and Description.

Camden (William) Britannia, sive florentissimorum regnorum Angliae, Scotiae, Hiberniae et insularum adjacentium ex intima antiquitate chorographica descriptio. 1586. 8vo. pp. 556. 576.c.28.
—(Another ed.) 1587. 8vo. 577.a.1.
—Nunc tertio recognita. Frankfurt. 1590. 8vo. 10348.bbbb.5.
—(Another ed.) 1590. 8vo. 796.g.11.
—Nunc quarto recognita. 1594. 4to. 1302.g.
—(Another ed.) Britannia . . . recognita et adaucta. (With a postscript separately paged, in answer to R. Brooke's "Discovery of Errors.") 1600. 4to. 577.f.1.
—(Another ed.) 1607. Fol. 576.m.7.
—Nunc tertio recognita. Frankfurt. 1616. 8vo. 796.b.36.
—(Another ed.) Amsterdam. 1617. 8vo. 577.a.2.
—(Another ed.) Amsterdam. 1639. 12mo. 796.a.3.
—Britain, or a chorographical description of the most flourishing kingdoms, England, Scotland, and Ireland. Translated newly into English by P. Holland. 1610. Fol. 10348.k.1.
—(Another ed.) Enlarged. 1637. Fol., 2 vols. 1325.k.
—(Another ed.) 1695. Fol. 577.l.1.
—(2nd ed.) 1722. Fol., 2 vols. 577.l.2.
—(3rd ed.) 1753. Fol., 2 vols. 10348.l.2.
—(4th ed.) 1772. Fol., 2 vols. 2072.e.
—Britannia . . . translated from the edition published by the author in 1607, enlarged by the latest discoveries by R. Gough. 1789. Fol., 3 vols. 2072.e.
—2nd ed.) 1806. Fol. 192.f.4.
—Camden's Britannia abridg'd. 1701. 8vo, 2 vols. 10348.c.9.
Brooke (Ralph) A discoverie of certaine errours published in the much-commended *Britannia* (by W. Camden), 1594. . . . 1596. 4to, 2 vols. 796.g.12.(1, 2).
A discoverie of certaine errours, etc., to which is added Mr. Camden's answer to this Book. 1723–24. 4to, 2 vols. 139.c.29.

Camden (William) Remains concerning Britain. 1605. 8vo.
*—(Another impression). 1614. pp. iv, 386.
—(5th impression.) 1636. 4to, pp. 420. G.5970.
—(Another ed.) 1637. 4to. 598.d.15.
—(6th impression.) 1657. pp. 412. 808.b.3.
—(7th impression.) 1674. 8vo. 980.e.9.
—(Do. reprinted.) 1870. 12268.c.7.

Speed (John) The theatre of the Empire of Great Britain, presenting an exact geography of the Kingdom of England, Scotland, Ireland, and the Isles adjoyning. 1611–12. Fol., ff. 146. G.7884.
—(Another ed.) 1676. Fol., 2 pts. 1259.f.1.
—An epitome of Mr. John Speed's Theatre of the Empire of Great Britain. 1676. 8vo. 2 pts. 570.a.58.

Moryson (Fynes) An itinerary written by Fynes Moryson, Gent. first in the Latine tongue and then translated by him into English. 1617. Fol., 3 pts. 214.c.9.

Porter (Thomas) A new booke of mapps, being a . . . guide for any stranger . . . who is to travel in any part of the Cōmonwealth of England, Scotland, and Ireland. 1655. 12mo. 796.a.4.

Blome (Richard) Britannia: or, a geographical description of England, Scotland, and Ireland . . . 1673. Fol., pp. 464. 577.k.2.

Misson (Henri) Memoires et observations faites par un voyageur en Angleterre . . La Haye, 1698. 12mo. 980.b.3.

—M. Misson's memoirs and observations in his travels over England. With some account of Scotland and Ireland . . Translated by Mr. Ozell. 1719. 8vo, pp. xiii, 367. 567.d.2.

Gedenkwaardige Aantekeningen, gedaan door een Reisiger in de Jaaren 1697 en 1698 van geheel Engeland, Schotland, en Yrland. Utrecht. 1699. 8vo. *Map, plates.* 10348.bb.14.

Neuville, M. de, *Topographer.* Origine de postes chez les anciens et chez les modernes. Paris. 1708. 12mo.

A short specimen of a new political arithmetic, containing some considerations concerning public roads, by a F.R.S. 1734. *Bodleian Library.*

***Postlethwayt (Malachy)** (*ed.*) Universal dictionary of trade, article "Roads." 1751. 714.l.6–8.

Rocque (Jean) Rocque's Traveller's Assistant; being the most general and compleat director extant to all the post, principal, and cross-roads in England, Wales, Scotland, and Ireland. 1763. 12mo. 796.a.8.

Burlington (Charles), Rees (David Llewellyn), Murray (Alexander) Universal British traveller, or a tour through England, Wales, Scotland, and neighbouring islands, containing a full, ample, and circumstantial account of everything remarkable throughout the kingdom, a complete road book, and a list of all the fairs. 1780. Fol.

Walpoole (George Augustus) The new British traveller; or, a complete . . . display of Great Britain and Ireland: being a new . . . tour through England, Wales, Scotland, Ireland, the Isles of Man, Wight, etc. 1784. Fol., *maps, illus.* 10348.l.

Chantreau (P. N.) Voyage dans les trois royaumes d'Angleterre, d'Ecosse, et d'Irlande, fait en 1788 et 1789. Paris. 1792. 3 vols. 8vo. 567.d.5–7.

Phillips (John) General history of inland navigation, foreign and domestic . . . 1792. 4to. 192.a.15.

—(Another ed.) 1799.

*—(4th ed.) 1803. 8vo. 1028.h.19.

Gives account of Thames Tunnel, Gravesend to Tilbury.

Clarke (E. D.) A tour through the south of England, Wales, and part of Ireland made during the summer of 1791; with plates. 1793. 8vo. pp. xxx, 403. 1430.c.20.

Tyner (George) The Traveller's Guide through Ireland: being an accurate . . . companion to . . . A. Taylor's Map of Ireland . . . To which are added the Roads from London to Chester, Holyhead, etc. Dublin. 1794. 8vo. 10390.c.4.

U.K. *Board of Agriculture.* Many volumes of surveys of counties. containing incidental accounts of roads and road maintenance. 1794–1810.

Metcalf (John) The life of John Metcalf . . . with . . . anecdotes of his exploits in hunting, card playing, road-making, and erecting of bridges . . . York. 1795. 12mo, pp. vi, 153. 13825.a.23.

—(Another ed.) Manchester. 1826. pp. 60. 10803.aa.3.(3).

—(Another ed.) Leeds. 1830. pp. 56. 1202.b.36.

Meine Fussreise durch die drey brittischen Königreiche. Voran einige Nachrichten von dem Feldzuge in Champagne. Von einem französischen Offizier. Riga. 1797. 8vo. 10348.a.5.

Mavor (William Fordyce) The British Tourist; or, Traveller's Pocket Companion through England, Wales, Scotland, and Ireland . . . 1798–1800. 12mo. 6 vols. 10348.a.

—(3rd ed.) 1809. 792.b.5–10.

Kearsley (George) Kearsley's traveller's entertaining guide through Great Britain; or, a description of the great roads and principal cross roads . . . the whole forming a general tour through Great Britain and Ireland. 1801.

—(2nd ed.) 1803. 8vo, pp. 32–405–42. 10349.bb.15.

Cooke (George Alexander) The Modern British Traveller; or, Tourist's Pocket Directory. Being an accurate history and description of all the counties in England, Scotland, and Wales; as also the adjacent islands. 1802–10. 12mo. 47 vols. 219.a.1–25.

Jessop (William) On inland navigations and public roads. (Georgical Essays, Vol. VI.) 1804. 8vo. 7077.dd.

Coultman (N.) Traveller's companion. 1806. *Mitchell Library, Glasgow.*

Dupin (Francois Pierre Charles, Baron) Memoires sur la marine et les ponts et chaussées de France et de l'Angleterre, contenant deux relations de voyages faits par l'auteur dans les ports d'Angleterre, d'Ecosse et d'Irlande . . . 1816–1818. Paris. 1818. 8vo. 959.d.7.

—Commercial power of Britain . . . Streets, roads, canals, aqueducts, bridges, coasts, and maritime ports. Translated from the French. 1825 (*i.e.* 1824). 8vo, 2 vols.; atlas, 4to. 577.f.20. Noticed in *Westminster Review* of Oct. 25.

***Edinburgh Review** Article on roads. 1819.

Rees' Cyclopœdia Article "Roads." 1819.

***Quarterly Review** (May). Article on roads and highways. 1820.

Stevenson (Robert) Roads and highways. Edinburgh. 1824. *Glasgow University Library.*

Maclaren (Charles) Railways compared with canals and common roads. *Pamphleteer*, Vol. XXVI. 1826. 8vo., P.P.3557.w.

Fuge (Robert) An essay on the turnpike roads of the kingdom. 1832. *Glasgow University Library.*

Gordon (Alexander) An historical and practical treatise upon elemental locomotion and interior communication, wherein are explained and illustrated the history, practice, and prospects of steam carriages, and the comparative value of turnpike roads, railways, and canals. 1832. 8vo, pp. v, 192, *illus.* 538.g.37.(1).

*—(2nd ed.) 1834. 8vo, pp. xiv, 344. 538.g.37.(2).

*—(3rd ed.) 1836.

Maceroni (Francis) A few facts concerning elementary locomotion. 1834. (2nd ed.) 8vo. T.1513.(17).

Gordon (Alexander) The fitness of turnpike roads and highways for the most expeditious, safe, convenient, and economical internal communication. 1835. 8vo, pp. 32. T.2018.(13).

Lardner (Dionysius) The steam engine, steam navigation, roads, and railways, explained and illustrated. 1836. 8vo.
—(5th ed.) 1836. 538.g.34.
—(7th ed.) 1840. 538.g.35.
*—(8th ed.) 1851. pp. 422. 8765.b.43.

Adams (William Bridges) English pleasure carriages; their origin, history, varieties, materials, construction, defects, improvements and capabilities; with an analysis of the construction of the common roads and railroads. 1837. 8vo. pp. 315. 538.g.28.

Apperley (Charles James) The chace, the turf, and the road (by Nimrod). 1837. 8vo, pp. xx, 310. 1040.i.6.
—(2nd ed.) 1843. 12mo. 785.e.30.
—(New ed.) 1852. 8vo. 1155.c.
—(New ed.) 1870. 8vo. 7905.bb.25.
—(New ed.) 1898. (*Sportsman's Library*, Vol. VI.). 4to, pp. 334. 7908.i.
—(New ed.) 1901. 8vo, pp. 161. 07905.e.
"The Road" reprinted separately, 1851.

Gordon (Alexander) Observations addressed to those interested in either railways or turnpike roads; showing the comparative expedition, safety, convenience, and . . . economy of these . . . . for internal communicaton. 1837. 8vo, pp. 31. T.2099.(6).

Bloodgood (Simon De Witt) A treatise on roads: their history, character and utility. Albany. 1838. 8vo. 1396.e.

Telford (Thomas). Life of T. T., by himself . . . Edited by John Rickman. 1838. 4to; Atlas, fol. 558.*d.23; 558.*h.18.

*Roads and railroads, vehicles and modes of travelling of ancient and modern countries, with accounts of bridges, tunnels and canals in various parts of the world. 1839. 12mo. pp. viii, 340, *illus.* 1136.k.25.

***Statistical Society of London.** Turnpike roads. Journal, January. 1839.

Black (A. and C.) Guides (to the United Kingdom). 1841, *et seq.* 8vo, *illus., maps and plans.*
Give notes on roads radiating from each centre. For list, *see* Nelson's "Standard Books," Vol. I., p. 380.

Penny Cyclopœdia. Article on roads. 1841. 2106.de.

Adams (William Bridges) Road progress, or amalgamation of railways and highways for agricultural improvement, and steam farming in Great Britain and the Colonies. 1850. 8vo; *large folding plans.*

Donne (W. B.) Old roads and new roads. 1852. 8vo, pp. 112. 1155.g.16.

Bradshaw (George) Bradshaw's Illustrated Tourist's Handbook of Great Britain and Ireland (in four sections). London. 1858. 4 pts. 8vo. P.P. 2500.abl.

***Philp (Robert K.)** The progress of carriages, roads, and water conveyances, from the earliest times to the formation of railways. (Part of the "History of Progress in Great Britain.") 1859. 8vo. pp. 137–204. *Map, illus.*

***Adams (William Bridges)** Roads and rails, and their consequences, physical and moral. 1862. 8vo, pp. 372. 8765.b.29.

Chaix (A. N.) Bibliothèque du Voyageur. Nouveau guide à Londres, dans ses environes, en Angleterre, en Ecosse, en Irlande. Paris. 1862. 12mo. 10351.bbb.21.

***Devey (J.)** Life of Joseph Locke. 8vo. *Portrait.* 10825.ee.13.

Garnier *Frères* Nouveau guide général du voyageur en Angleterre, en Ecosse, et en Irlande, par William Darcy. Paris. 1864. 12mo. 10107.cc.

Glass (Henry Alexander) Three lectures on roads and road-makers. 1864. 8vo, pp. 112.

***Esquiros (Alphonse)** Itineraire descriptif et historique de la Grande Bretagne et de l'Irlande. (Collection des Guides-Joanne). Paris, 1865. 8vo. 10348.cc.14.

Heywood (Abel) Abel Heywood's series of Penny Guide Books. Manchester. 1866. 8vo. 10351.ccc.

Lockhead (W.) John Lockhead, the originator of the system of road-making now known as macadamizing. 1866. *Glasgow University Library.*

***Brunel (I.)** Life of Isambard Kingdom Brunel. 1870. 8vo. 10826.g. pp. 6–39, Thames Tunnel; pp. 46–58, Clifton Suspension Bridge. *Illus.*; pp. 59–60, Hungerford Suspension Bridge. *Illus.*

Shaw (George) Shaw's Tourist's Picturesque Guide to Great Britain and Ireland. Boston, *Mass.* 1873. 8vo. 10349.b.30.

Rennie (Sir John) Autobiography. 1875. 8vo. 10825.e.20.

Our roadways. 1876.

Willcocks (George Waller) Roads and Roadways. 1879.

Middleton (Viscount) Our highways. *Nineteenth Century*, Oct. 1881.

Phillips (Robert Edward) The cyclist's pocket road guides, with key index. London. 1881–1883. 8vo. and 16mo. 10347.a.21; 10347.bb.10.

Perels (E.) Handbuch des landwirthschaftlichen Transportwesens. Jena. 1882. 8vo. pp. xiii, 539. 7078.i.5.

Codrington (Thomas) Roads and streets. Encyclopœdia Britannica, vol. 20. 1886.

***Götz (W.)** Die Verkehrswege im Dienste des Welthandels: eine historisch-geographische Untersuchung . . . Stuttgart. 1888. 8vo. pp. xv., 806. 10004.h.3.

Maudslay (Athol) Highways and horses. 1888. 8vo. pp. xxxii, 471; *illus.* 7906.g.36.

Footpaths. *Leisure Hour*, May, 1890. *illus.*

Colson (C.) Transports et tarifs. Paris. 1890. 8vo. pp. 479, 08235.f.62.

*—(2nd ed.) 1898. 8vo. pp. 682.

Lamont (Alexander) Footpaths. *Sunday Magazine*, May, 1890.

European streets and highways. *Engineering Record*, Dec. 12, 1891.

Cyclists' Touring Club. British road book. 1891 *et seq.* 8vo. 10347.c.32.

Haupt (L. M.) The road movement. *Lippincott's Monthly*, Jan, 1891.

Potter. Roads in Europe and America. *Engineering Magazine*, Aug., 1891. *illus.*

Speed (G. G.) Common roads in Europe. *Lippincott's Monthly*, Oct.

Speed (G. G.) Country roads and highways. *Lippincott's Monthly*, Sept., 1891

Good Roads New York. 1892 *et seq.* 8vo., *illus.*
Vols. 1–4 and Vol. 5, Nos. 1, 2, 4–6 in Patent Office Library.

MacQueen (Peter) Bridges and bridge-builders. *Cosmopolitan*, Aug. 1892.

Spurrier (W. J.) Cyclists' route book for Great Britain and Ireland. 1893. 8vo, pp. 188. 10348.cc.24.

Milestone guides, books 1–12. 1894. 16mo. 10347.a.23.

***Borght (R. van der)** Das Verkehrswesen. Leipzig. 1894. 4to, pp. x, 468. 8009.k.
Roads, pp. 157–192; bibliography, pp. 412–415.

Boyle (J. R.) On roads and boundaries. *Antiquary*, Feb., May, 1894.
Davidson (J.) A random itinerary. 1894. 8vo, pp. 204. 10358.ccc.44.
The evolution of the modern road. *Surveyor*, Oct. 4, Nov. 22, 1895.
Baines (F. E.) On the track of the mail-coach: being a volume of reminiscences . . . 1895. 8vo., pp. 351. 08247.ee.6.
***Bayard (T. F.)** British highways. *U.S.A. Monthly Consular Reports*, Sept. 1896. pp. 157–170.
Cyclists' Touring Club. Handbook and guide, British and Irish edition. 1896. 8vo. 10348.aaa.
*—(Another ed.) 1901.
*—(Another ed.) 1903.
*—(Another ed.) 1907.
Frith (Henry) The romance of road-making. *Surveyor*, Jan. 3, 1896. *illus.*
Pemberton (A. C.) The complete cyclist. 1897. 8vo. 07905.g.
***Tyler (Sir Henry)** The geography of communications. *Scottish Geographical Magazine*, xiii, July, 1897.
***U.S.A.Govt.** Streets and highways in foreign countries. Special Consular Reports, Vol. III. Washington. 1897. 8vo., pp. 616., *illus.*
Lunn (H. S.) Cycling handbooks. 1898. 8vo. 010107.f.
The Road Coaching Album. 1899–1900. Fol., 2 vols. 1820.b.17.
Unenclosed roads and the gates across them. *Land Magazine*, May. 1900.
Rumney (A. W.) The cyclist's touring guides. 1900. 8vo. 10105.cc.
***White (A. Moresby)** The improvement of our roads. *Royal Society of Arts Journal*, May 11, 1900.
Bacon (G. W.) Cyclists' route guides. 1901 *et seq.* 12mo. 010347.ee.
National Cyclists' Union. Official handbook. 1901. 8vo. 7912.de.
Salkield (T.) John Loudon McAdam, the great road-maker. *Surveyor*, Aug. 23, 1901. *illus.*
Ancient roads. *Surveyor*, Jan. 10. 1902.
Cyclists' Touring Club. The British and Irish road book. Vol. I.—Southern and South-Western Counties. 6th ed. 1904. 10347.i.2 Vol. II.—Eastern and Midland Counties, including Wales. 2nd ed. 1898. 10347.i.2. Vol. III.—Northern Counties. 3rd ed. 1899. 10347.i.2. Vol. IV.—Scotland. 2nd ed. 1901. 10347.i.2 Vol. V.—Southern Ireland. 1899. 10390.de.18. Vol. VI.—Northern Ireland. 1900. 10390.de.18.
(The most complete description of British roads available at the present time, through which, and similar volumes contained in this list, the gradual growth of our roads can be traced over a period of nearly three centuries.)
Bennett (F. J.) Our roads from prehistoric times to the present day. 1905. 2 pts. 07708.de.22.(4).
Bradley (A. G.) The revival of the road. *Living Age*, Jan. 21, 1905.
Harper (C. G.) Miniature road books. 1906 *et seq.* 16mo. 01034.aaa.
Roads of the future. *Living Age*, Sept. 7. 1907.
Jervis (Charles M.) Roads and driveways for the country estate. *Country Life*, Sept., 1907.
Lavender (J.) The King's highway. *Canadian Magazine*, Jan., 1907.
Ryves (Reginald Arthur) The King's highway. *Surveyor*, Feb. 1, 8, 15, 22; March 1, 8, 15, 22, 29; April 5; May 3, 10, 17; June 21; Aug. 9, 16, 23, 1907. *illus.*
—Issued in volume form, 1908. 4to, pp. 96, 34 *illus.* 8766.dd.20.
Thomas (K. E.) Motoring along a King's Highway. *Overland*, Jan. 1907. pp. 40–47.
***Chambers' Encyclopædia.** Article "Roads." 1908.

National Cyclists' Union. Comprehensive alphabetical distance table. Lewes. 1909. Fol, s.sh. 1801.d.2 (118).
Open Road for Cyclists and Motorists (Periodical) 16mo. P.P. 2498.kfd.
Eaton (W. P.) Roads. *Scribner's Magazine.* May, 1910. *Illus.*
Hayward (Charles B.) The perils of the country road. *Harper's Weekly*, July 2, 1910.
Montagu (Lord) *ed.* *Car* road book. 1910. 8vo. pp. 615, *map.*
Wood (A. T.) and **Wood (B. R.)** Ribbon roads. New York. 1910.
***Encyclopædia Britannica** (11th ed.) Article on John Loudon MacAdam. 1911.
Wilkinson (T. W.) The King's highway. *Autocar*, Jan. 7, 1911 *et seq., illus.*
Macdonald (J. H. A.) The road—past, present, and future. *Nature*, April 4, 1912.

2. Administration.

***Anonymous.** 17th and 18th century roads. (Manuscript, 4 pages).
Procter (Thomas) A worthy worke, profitable to this whole kingdome, concerning the mending of all highways, as also for waters and ironworkes. 1607. C.31.b.17.
—(2nd ed.). 1610. C.31.d.6.
Defoe (Daniel) An essay upon projects. 1697. 8vo, pp. xiv, 336.
*—Reprinted 1887. pp. 18–112, "Of the highways."
***U.K. Govt.** Form of return to be filled up by trustees of roads, relating to mail-coaches. 1810–11 (123) iii. 703.
*—Report from Select Committee on mail-coach exemption from toll. 1810–11 (212) iii. 707.
***U.K. Govt.** Bill to explain the exemption from toll in several acts of Parliament, for carriages employed in husbandry, and for regulating the tolls to be paid in certain other cases therein specified. 1812 (240, 270) i. 1031, 1033.
*— Act 52 Geo. III, c.145.
*—Bill to repeal the exemption from toll granted for or in respect of carriages and horses carrying the mail. 1812 (132) i. 567.
*—Estimate of charge that will be incurred by taking off the mail-coach exemption from toll. 1812 (201) ix. 229.
***U.K. Govt.** Bill to amend an Act of 52 Geo. III, intituled "An Act to explain the exemption from toll in several acts for carriages employed in husbandry, and for regulating the tolls to be paid on other carriages and on horses in certain other cases therein specified," and for other purposes relating thereto. 1812–13 (89, 205) i. 327, 331.
*— Act 53 Geo. III, c. 81.
***U.K. Govt.** Bill to enable the trustees of turnpike roads to abate the tolls on carriages, and to allow of their carrying extra weights in certain cases. 1814–15 (398) ii. 825.
*— Act 55 Geo. III, c. 119.
*—Reports from Committee on improving the communication between England and Ireland, and conveyance of the mail. 1814–15 (363, 395) iii. 355, 385.
***U.K. Govt.** Bill appointing special surveyors (of highways) 1816. (222, 341) i. 219, 223.
*—Bill exempting from toll certain carriages conveying manure. 1816 (387) i. 449.

***U.K. Govt.** Bill to explain and amend an Act of 53 Geo. III, relating to tolls on carriages used in husbandry, and to remove doubts as to the exemption of carriages not wholly laden with manure from payment of toll. 1817 (261, 307) ii. 1, 5.

*— Act 57 Geo. III, c. 37.

*—Reports (5) from Committee on improving the communication between England and Ireland and conveyance of the mail. 1817 (313, 332, 411, 459, 469) iii. 179, 199, 203, 207, 245.

Greig (William) Strictures on road police, containing views of the present system on which roads are repaired. 1818. 8vo.

***U.K. Govt.** Bill to alter the application of penalties for offences against the highway laws. 1818 (261) i. 573.

***U.K. Govt.** Reports (6) from Committee on improving the communication between England and Ireland and conveyance of the mail. 1819.

1st, on Chirk Valley and Bangor Ferry. (78) v. 115.
2nd, on the Anglesea road. (217) v. 121.
3rd, on the Menai bridge. (256) v. 135.
4th, on the interruption of Post-office packets. (501) v. 153.
5th, on the conveyance of mails and construction of sailing packets. (548) v. 157.
6th, on turnpike trusts and construction of roads. (549) v. 223.

***U.K. Govt.** Bill for obtaining returns from turnpike road trusts of the amount of their revenues and expenses of maintaining the same. 1820 (185) i. 297.

*— Act 1 Geo. IV, c. 95.

*—Reports (2) from Committee on improving the communication between England and Ireland, and conveyance of the mail. 1820.

1st, on the communication with Ireland, the bridge at Conway, and construction of roads. (201) iii.1.
2nd, on turnpike trusts, and Mr. Mac Adam's system of road-making. (224) iii. 7.

The improvement of the public roads urged during the existing dearth of employment for the poor. 1821. C.T. 208 (6).

***U.K. Govt.** Account of monies given by the Post-office to Mr. Mac-Adam. 1821 (424) xxi. 255.

Paterson (James) A series of letters and communications addressed to the Select Committee of the House of Commons on the highways of the Kingdom. . . . 1822. Montrose. 12mo, pp. 87.

Bateman (Joseph) The General Turnpike Road Act, 3 Geo. IV. c. 126, with an appendix of forms . . 1822–23. 8vo. 2 pts, 6375.aa.

—2nd supplement, 1827. 1129.c.23.

—4th ed., by W. N. Welsby, 1854. 12mo. 6375.b.1.

A Digest of the Laws relating to Turnpike Roads, by a Clerk to Trustees. Hinckley. 1822. 12mo. T.1079.(4).

***U.K. Govt.** Reports (6) from Committee on improving the communication between England and Ireland, and conveyance of the mail. 1822.

1st, on roads in North Wales. (41) vi. 1.
2nd, on steam-packets. (180) vi. 9.
3rd, on the Chester road. (275) vi. 35.
4th, on the road through England from North Wales to London. (343) vi. 55.
5th, on steam-boats. (417) vi. 115.
6th, on Irish roads. (513) vi. 241.

Wake (Bernard John) Turnpike roads; lenders of money on mortgage of tolls . . . cannot . . . have any legal security; a

reply, in support of this doctrine, to W. K. Dehany, the avowed draftsman of the recent Turnpike Road Acts. 1823. 8vo. T. 1071. (10).

Dehany (William Knight) The general Turnpike Acts, 3 Geo. IV., c. 126, & 4 Geo. IV., c. 95. With the reasons for passing the explanatory act . . . 1823. 12mo, pp. xxxix, 227. 517.b.30.

***U.K. Govt.** Bill to explain so much of the General Turnpike Act as relates to the toll payable on carriages laden with lime for the improvement of land. 1823 (88) ii. 615.

*— Act 4 Geo. IV, c. 16.

*—Bill for appointing commissioners of the road from London to Holyhead, and vesting in them the Menai and Conway bridges, the harbours of Howth and Holyhead, and the road from Dublin to Howth. 1823 (179; 312) ii. 617; 677.

*— Act 4 Geo. IV, c. 74.

*—Report from Select Committee on the communication between Scotland and Ireland. 1823 (486) v. 133.

***Cobbett (William, jr.)** Law of turnpikes. 1824. 8vo., pp. iv, 196. 517.d.32.

***U.K. Govt.** Estimate of the sum necessary for defraying the expense of improvements on the road from London to Dublin, and from Howth to Dublin. 1824 (56; 57) xxi. 28; 38.

Highways improved: a letter to a Member of Parliament on the expediency of appointing county or district surveyors of highways. 1825. 8vo. T.1157.(4).

Statement of the general laws respecting highways and turnpike roads; including the substance of the new acts. 1825. 12mo., pp. 68. 1130.c.43.(2).

Macadam (John Loudon) Observations on the management of trusts for the care of turnpike roads, as regards the repair of the road, the expenditure of the revenue, and the appointment . . . of . . . officers . . . 1825. 8vo. 1028.h.11.(2).

***U.K. Govt.** Bill to extend the powers of an Act for vesting in Commissioners the bridges building over the Menai Straits and the River Conway, and the harbour of Howth and Holyhead, and the road from Dublin to Howth, and for the further improvement of the road from London to Holyhead. 1825. (198) ii. 515.

*— Act 6 Geo. IV, c. 100.

—Estimate of the sum required to be expended by the Commisisoners for the roads and harbours of Holyhead and Howth. 1825 *et seq.* *1825 (151) xviii. 369; *1826 (135) xx. 135; *1826–27 (159) xv. 243; *1828 (121) xvii. 395; *1829 (65) xvi. 249; *1830 (85) xviii. 464; *1830–31 (228) vi. 291; *1831 (27) xiii. 227; *1831–32 (157) xxvii. 614.

***U.K. Govt.** Bill for further extending the powers of an act for vesting in Commissioners the bridges building over the Menai Straits and the River Conway, and the harbours of Howth and Holyhead, and the road from Dublin to Howth, and for the further improvement of the road from London to Holyhead. 1826 (311) ii. 101.

*Act 7 Geo. IV, c. 76. 1826.

*—Third annual account of the sum of money advanced to, and expended by, Commissioners for Holyhead roads, and Holyhead and Howth harbour, the Menai and Conway bridges, and other works. 1826 (355) xi. 77.

***U.K. Govt.** Account of all fees paid on bills for enlarging the terms of turnpike road trusts. 1827 (548) xx. 747.

*—Report from the Select Committee on the practicability of reducing the expenses of procuring bills for continuing turnpike trust acts. 1826–27 (383) vi. 1.

***U.K. Govt.** Resolutions, to be proposed by Mr. Littleton on 7th June, 1827, relative to Parliamentary charges on turnpike bills. 1826–27 (0.16) xx. 745.

***U.K. Govt.** Bill to amend the acts for regulating turnpike roads, and to render unnecessary the repetition of clauses usually inserted in local turnpike Acts. 1828 (369; 428) i. 631; 641.

*—Resolutions, proposed by Mr. Littleton, for the abolition of fees and charges on renewal of turnpike bills. 1828 (0.18) xxi. 729.

***U.K. Govt.** Resolutions, proposed by Mr. Littleton, for the abolition of fees and charges on renewal of turnpike bills. 1829 (0.7) xxi. 55.

Wellbeloved (Robert) Treatise on the Law relating to Highways . to which is added an appendix of forms and precedents. 1829. 8vo. 517.f.14.

Woolrych (Humphrey William) A treatise on the law of ways, including highways, turnpike roads and tolls. 1829. 8vo. 517.f.15.

—(2nd ed.) 1847. 1380.h.

Egremont (John) The law relating to highways, turnpike roads, public bridges, and navigable rivers. Vol. I. 1830. 12mo. 517.f.17.

***U.K. Govt.** Detail of sum charged in the civil contingencies of 1829, for fees on turnpike bills, which received the Royal Assent in 1829, so far as relates to the House of Commons. 1830(399) xxxi. 287.

—Estimate required to defray the expense of paying the fees to the officers of the Parliament, on all bills for continuing or amending Acts for making and maintaining, keeping in repair, or improving, turnpike roads. 1830 *et seq.* *1830 (88) xviii. 497; *1830–31 (280) vi. 342; *1831 (30) xiii. 181; *1831–32 (278) xxvii. 679. *1833 (168) xxiv. 459; *1834 (183) xlii. 433; *1835 (143) xxxviii. 511; *1836 (159) xxxviii. 416.

***Quarterly Review,** December, 1832. Article on Amendment of the Poor Laws: deals with Pauper Labour on Roads.

***U.K. Govt.** Report from Select Committee on Post-Office Communication between Great Britain and Ireland. 1832 (716) xvii. 1.

***U.K. Govt.** Act requiring the annual statements of trustees or commissioners of turnpike roads to be transmitted to the Secretary of State, and afterwards laid before Parliament. 1833. 3 and 4 Gul. IV, c. 80.

*—Reports (2) from the Select Committee of the House of Lords on Turnpike Trusts. 1833 (422, 703) xv. 407, 409.

*—Bill to exempt lime from toll in certain cases. 1834 (304) ii, 689.

*—Number of bills for paving, lighting, and watching, passed in each session, 1831–1833; distinguishing those read a second time only, and the amount of fees paid on each. 1834 (In Appendix to 350) xi. 323.

*—Observations by clerks of the peace in returns relative to highways and public buildings. 1834 (542, Appendix) xiv, 207.

*—Report from the Select Committee appointed to inquire into the receipts and expenditure of highway and country rates. 1834 (542) xiv. 1.

Pratt (John Tidd) The law relating to highways, comprising the Statute 5 and 6 Will. IV, c. 50 . with notes . . . forms, references, etc. 1835. 8vo. 517.f.18.

—(3rd ed.) 1837. 12mo. 517.a.39.

—(4th ed.) 1844. 12mo. 1380.b.7.

—(5th ed.) 1848. 12mo. 1380.d.11.

—(7th ed.) 1855. 12mo. 1380.d.24.

—(8th ed.), by J. F. Archbold. 1857. 1380.d.18.

—(9th ed.) by T. C. S. Kynnersley. 1863. 6425.bb.17.
—(10th ed.) by T. C. S. Kynnersley. 1865. 6425.aa.40.
—(11th ed.) by T. C. S. Kynnersley. 1870. pp. xxxix. 447. 6425. aaa.25.
—(12th ed.) by S. Prentice. 1881. pp. xv. 545. 6426.df.22.
—(13th ed.) by W. W. Mackenzie and J. Weir. 1893. pp. lvi. 1016. 2232.b.23.
—(14th ed.) by William Mackenzie. 1897. 8vo, pp. 843 and 81. 2232.ccc.13.
—(15th ed.) 1905. pp. 1089. 2232.ccc.13.
—(16th ed.) 1911.

Shelford (Leonard) The General Highway Act of 5 and 6 Will. IV, c. 50, with notes. Also new forms and general rules for making and repairing roads. 1835. 12mo. 517.b.33.(3).
—(2nd ed.) 1845. 1380.b.6.
—(3rd ed.) 1862. 6425.bb.22, 23.

***U.K. Govt.** Report from the Select Committee on the London and Dublin Road. 1836 (427) xxi. 297.
*—Report from the Select Committee on Turnpike Trusts and Tolls, and other matters relating to roads. 1836 (547) xix. 335.

Pratt (John Tidd) The General Turnpike Road Acts; with notes, etc. 1837. 12mo. 517.b.37.

***U.K. Govt.** Bill to remove from counties the expense and liability of repairing highways over bridges, and the 300 feet next adjoining the ends of the same. 1837 (69, 297, 397) ii. 567, 569, 571.
*—Report from the Select Committee on Internal Communication, with minutes of evidence. 1837 (456) xx. 291.

***U.K. Govt.** Bill to amend and explain the General Turnpike Acts, so far as relates to the toll payable on carriages or horses laden with lime for the improvement of land. 1840 (471) iii. 727.
*—Bill to authorize the trustees or Commissioners of turnpike roads to appoint meetings for executing their trusts in certain cases. 1840 (414) iii. 729.

***U.K. Govt.** Bill to exempt from turnpike tolls, carriages and horses laden with lime for the improvement of land. 1841 (313) ii. 549.
*—Report from Select Committee appointed to inquire into the Post Office communication between Great Britain and Ireland, and to whom petitions were referred. 1841 (399) ix. 609.

***U.K. Govt.** Report from Select Committee appointed to inquire into the Post Office communication between Great Britain and Ireland, and to whom petitions were referred. 1842 (373) ix. 343.

Barclay (Hugh) Law of highways. The General Turnpike Act, the General Statute Labour Act for Scotland, and the whole other Acts relative to highways; with practical notes and digest of decided cases. Edinburgh. 1847. 8vo. 6573.d.
—(4th ed.) 1863. 6573.cc.

Bayldon (Richard) Turnpike traffic and tolls. 1847.

***U.K. Govt.** Index to reports of Commissioners of Roads and Bridges, 1800–1846. 1847 (71) lviii. pt. 2, 285.

Gemmell (T. M.) Road reform and horse tax. 1848. 8vo.

Dundas (C. J. W. D.) An abstract of road reform: in a letter to the Rt. Hon. Sir George Grey, Secy. of State, Home Dept. Edinburgh. 1849. 8vo., pp. 14. *Patent Office.*

***U.K. Govt.** Bill to facilitate arrangements for the relief of turnpike trusts, and to make certain provisions respecting exemptions from tolls. 1851 (482) vi. 297.
*— Act 14 and 15 Vict., c. 38.

***U.K. Govt.** Bill to confirm certain provisional orders made under an Act of the last session, "to facilitate arrangements for the relief of turnpike trusts, and to make certain provisions respecting exemptions from tolls." 1852 (352) iv. 415.

*— Act 15 and 16 Vict., c. 33.

***U.K. Govt.** Bill to confirm certain provisional orders made under an Act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts, and to make certain provisions respecting exemption from tolls. 1853 (763) vii. 455.

*— Act 16 and 17 Vict., c. 61.

*—Reports of the Admiralty relating to applications for local Acts. 1852–53.

Galway Improvement. (191–50) liv. 593.
Londonderry Improvement. (191–49) liv. 591.
Plymouth Improvement. (191–5) liv. 491.
Spalding Improvement. (191–33) liv. 533.

Oke (George C.) The law of turnpike roads . . . practically arranged, with cases, notes, forms, etc. 1854. 12mo. 6375.b.25.

—(2nd ed.) 1860. 6375.a.28.

***U.K. Govt.** Bill to confirm certain provisional orders made under an Act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts, and to make certain provisions respecting exemptions from tolls. 1854 (193) vi. 529.

*— Act 17 and 18 Vict., c. 51.

*—Reports of the Admiralty relating to applications for local Acts. 1854.

Glasgow New Suspension Bridge. (44–48) xxxviii. 533.
Londonderry Bridge (alteration of the site of a proposed bridge across the River Foyle, authorized by the Londonderry Bridge Act of 1852, and the approaches thereto). (44–49) xxxviii. 535.
Traethbach New Bridge and Road. (44–12) xxxviii. 439.

***U.K. Govt.** Statement of the expense of extra works performed on the roads and bridges under charge of the Parliamentary Commissioners in 1854. 1855 (in 337) xv. 488.

Bradfield (J. E.) Notes on toll reform, and the turnpike and ticket system. 1856. 8vo. 8247.b.

***U.K. Govt.** Reports of the Admiralty relating to applications for local Acts. 1856.

Cork Bridges, Waterworks, and Improvements. (41–26) xxxvii. 53.
Middlesbrough Extension and Improvement. (41–23) xxxvii. 47.

Bayldon (Richard) Treatise on road legislation and management. 1857. 8vo. 1396.f.

Glen (William Cunningham) A treatise on the law of highways. 1860. 12mo. 6425.a.12.

—(2nd ed.) 1865. 6425.aaa.12.

***U.K. Govt.** Return of turnpike trusts which have extinguished their bonded debts, but are continued by the "Annual Continuance Act," giving date of the last payment of debt, and number of miles of each of such trusts. 1860 (615) lxi. 287.

Glen (William Cunningham) Exemplification of Glen's Highway Board Accounts. 1863. 12mo. 8225.f.

***U.K. Govt.** Bill intituled an Act to prevent waywardens contracting for works within their own district. 1863 (205) v. 423.

*Mileage duties: case of the stage carriage proprietors. 1864. 8vo. pp. 32, *map*.

***U.K. Govt.** Report from the Select Committee appointed to inquire into the expediency and practicability of abolishing turnpike trusts: with the proceedings, minutes of evidence, appendix, and index. 1864 (383) ix. 331.

*—Return of the number and names of turnpike trusts under Continuance Act, which have no debt; and of trusts under special Acts which are out of debt, with date of grant and of expiration of Act, and annual amount of toll. 1864 (312) l. 587.

U.K. Govt. Return of the Turnpike Trusts Acts which were continued by the Turnpike Trusts Continuance Act, 1865, distinguishing those that are free from debt; and as to the residue, specifying the amount of debt due thereon, on the 31st December 1864. 1866. (229) lx. 481.

***Bradfield (J.E.)** Turnpike abolition: free locomotion on roads and bridges. A letter addressed to Mr. Secretary Walpole. 1867. 8vo, pp. 24.

***Henley, Anthony (3rd Baron Henley)** Turnpike Trusts: a letter to the Rt. Hon. Gathorne Hardy. 1867. 8vo, pp. 15. 6425.bb.26 (7).

***Hugessen (Edward Hugessen Knatchbull—)** Speech on moving for leave to bring in a Bill relating to turnpike trusts, in the House of Commons, Tuesday, March 19th, 1867. 8vo, pp.8.

U.K. Govt. Bill to alter and amend the law relating to turnpike trusts. 1867 (80) vi. 487; amended in Committee, (189) vi. 501.

—Special report from the Select Committee on Turnpike Trusts Bill; with the proceedings of the Committee and minutes of evidence. 1867 (352) xii. 709.

Hugessen, (Edward Hugessen Knatchbull—) Speech on moving the second reading of the Turnpike Trusts Bill in the House of Commons, June 17th. 1868. 8vo, pp.12. 8426.h.

Thompson (J.G.) A practical treatise on the law of highways. 1868. 8vo.

U.K. Govt. Bill to alter and amend the law relating to turnpike trusts. 1868 (9), v. 583.

—Return of the names of turnpike trusts: names of the several parishes through which the trust road passes; names of the highway districts or divisions in which each such parish is situated; length of trust road within each such parish; average annual cost of the maintenance of such road in each parish during the last three years; average highway rate in the pound for the last three years in each parish; rateable value in each parish for highway purposes; and the additional rate required if the trust road were repaired by the parishes instead of out of the trust funds. 1867–68 (233) lxii. 401.

—Return of turnpike trusts continued by the Annual Continuance Acts in 1864, 1865, 1866, and 1867, giving name of trust and county; date of expiry of last local Act; amount of interest payable under last local Act; and since placed in Continuance Act; names of trusts out of debt; names of trusts where roads are wholly or partly maintained by parishes; amount of debt paid off in each case since trust placed in Annual Continuance Act. 1867–68 (335) lxii. 379

—Return showing the names of the one hundred and fifty-nine turnpike trusts, the local Acts affecting which were placed in the exceptional schedule of the Act 29 and 30, Vict. c.105; the chapters of the several Acts; dates of expiring, amount of debt and interest; distinguishing those continued under the General Provisions of the said Act, and those "temporarily continued," also memorials for removal of toll-gates or to extinguish expired trusts, etc., presented since 1866. 1867–68 (349) lxii. 395.

U.K. Govt. Return of the turnpike trusts which are free and those which are not free from bonded debt, distinguishing those where the local Act has and has not expired, with year when the local Act will expire or did expire, the amount of tolls received in 1868, and the amount of bonded debt, and the amount of debt paid off (from 1859 to 1868) at par or by composition, and the amount of compositions so paid. 1870 (327) lix. 507.

Local Government Chronicle. *Notes and Queries* [include many notes on highway law] 1872 *et seq.* *1872-1895.

Toll gaspings. The last speehes of the toll-men to . . the Home Secretary, reviewed by a Road Trustee. Edinburgh. 1874. 8vo, pp. 7. 08227.ee.47 (8).

Campbell (John I.) A road system in statutory form, for creating, constructing, repairing and maintaining public highways. 1875.

***Franquet de Franqueville (Charles)** Regime des travaux publics en Angleterre. Paris. 1875. 8vo, 4 Vols.

—(2nd ed.). 1875. 6376.e.2.

Chapter on Roads and Bridges, Vol. II, pp. 123-183; on road laws, Vol. 4, pp. 3-59.

Chambers (George Frederick). The law relating to highways and bridges. . . . 1878. 4to, pp. vii, 185. 2232.f.

***Foot (James A.)** Consolidated abstracts, or the Highway Acts, 1862, 1864; the Locomotive Acts, 1861, 1865, and the Highways and Locomotives (Amendment) Act, 1878. . . 1879. 8vo, pp. xxi, 267. 2nd ed., 1879. 6426.b.34.

Glen (Alexander) The Highway Acts, 1862-1878, the Locomotive Acts, 1861-78, and the general provisions of the Turnpike Continuance Acts, 1863-1878. With introduction, notes, etc. 5th ed. 1879; with a paper on the construction and repair of roads, by W. Nethersole. 8vo, pp. xxx, 350. 6425.df.4.

Glen (Alexander) The powers and duties of Surveyors of Highways, and of other authorities, with regard to the management of the public highways 1880. 8vo, pp. xi, 215. 6426.b.42.

—(Another ed.) 1881.

—(Another ed.) 1888. pp. 303. 6426.bb.39.

Chambers (C.H.) Public health and highways. 8vo. 1881.

U.K. Govt. Report from the Select Committee of the House of Lords appointed to inquire into the operation of the Highway Acts, and also to consider whether it may be desirable to consolidate and amend the same; with the proceedings, evidence, appendix, and index. 1881 (371) x. 1.

Higgins (E.) Letters on highway legislation. 1882. 8vo, pp. 27. 8138.e.3 (20).

Glen (William Cunningham and Alexander) The law relating to highways, expiration of turnpikes, bridges, interference of railways with highways, tramways, etc. 1883. 8vo, pp. xlv, 1096. 6426.ee.9.

—(2nd ed.) 1897. 8vo., pp. lxxxiv, 1405. 2232.f.3.

***Clifford (Frederick)** History of private bill legislation. 1885-87. 8vo. 2 Vols. 6146.e.11.

See especially Vol. II, chapter 7 (highways, roads, bridges, ferries).

Surveyors' Institution. Professional notes. (Many brief notes relating to law of highways). 1886 *et seq.* 8vo. Ac.4315-2

Thropp (James) Repairs of Roads. Suggestions to surveyors of highways. 1887. 8vo, pp. 26. 8768.i.8 (9).

Glen (William Cunningham) Highway Surveyor's Guide. 1888.

—(2nd ed.) 1888. 12mo.

U.K. Govt. Bill for the better protection of footpaths and roadside wastes. 1888 (238) iii. 31.
U.K. Govt. Bill for the better protection of footpaths and roadside wastes. 1889 (168) iii. 85. Not printed.
U.K. Govt. Bill to amend the law relating to footpaths and main roads. 1890 (395) v. 99.
***Municipal Journal.** Notes and Queries [including many notes on law of highways]. 1892 *et seq.*
***U.K. Govt.** Act to consolidate and amend certain enactments relating to the acquisition of land for military purposes. 55 and 56 Vict., c. 43. 1892.
Section 13—Power to stop or divert footpaths.
Section 16—Bye laws as to highways.
—Bill for the better protection of footpaths and roadside wastes. 1892 (158) iii. 191.
*—Bill for the preservation of footpaths. 1892 (161) iii. 195.
Whinery (Samuel). Effect of street paving on the value of abutting property. *Engineering Record*, May 21, 1892.
Walker (J. D.). Rights of way; *with discussion.* Surveyors' Institution, Transactions, Vol. 25, pp. 35-62. 1893.
District Councils and main roads. *Surveyor*, Sept. 20, 1894.
The future control of highways. *Surveyor*, April 5, 1894.
Main roads and their management. *Surveyor*, Dec. 13, 1894.
Maintenance of main roads. *Surveyor*, Aug. 16, 1894.
Owners' liability for road repairs. *Surveyor*, Feb. 1, 1894.
Payment for main road maintenance. *Surveyor*, Feb. 8, 1894.
Highway management. *Surveyor*, June 6, 1895.
More about main roads. *Surveyor*, April 18, 1895.
Hooley (E. Purnell) Management of highways. 1895. 8vo., pp. 104.
Management and position of rural roads. *Builder*, Oct. 31, 1896.
Colam (R. F.) A suggestion for an improved method of dealing with disputes as to rights of way: *with discussion.* Surveyors' Institution, Transactions, vol. 28, pp. 203-236. 1896.
Hunter (Sir Robert) Preservation of Open Spaces and of Footpaths and other Rights of Way. 1896. 8vo., pp. 424. 6306.g.4.
The opening of highways. *Surveyor*, Jan. 1, Aug. 13, 1897.
The preservation of footpaths. *Progressive Review*, Aug., 1897.
The opening of streets. *Surveyor*, Sept. 30, 1898.
The repair of main roads. *Surveyor*, Dec. 16, 1898.
Waste strips adjoining highways. *Surveyor*, Nov. 25, 1898.
The improvement of roads. *Surveyor*, Aug. 11, 1899.
Road authorities and street accidents. *Surveyor*, Feb. 24, 1899.
The Roads Improvement Association. *Surveyor*, Aug. 25, Sept. 8, 1899.
Conder (J. B. R.) Handbook of Highway Cases, noted in *The Surveyor and Municipal and County Engineer.* 1899. 8vo., pp. 116. 6426.e.28.
*Dictionary of Political Economy, edited by R. H. I. Palgrave. Article on Turnpike Trusts. 1899.
*—(2nd ed.) 1908.
Assisted (or subsidised) roads. *Surveyor*, Oct. 12, 1900.
Construction and maintenance of main roads. *Surveyor*, Nov. 23, 1900.
The maintenance of highways. *Surveyor*, Sept. 14, 1900.
New streets. *Surveyor*, May 4, 1900.
Trespass on the highway. *Surveyor*, Nov. 23, 1900.
Urban district councils and main road. *Surveyor*, June 15, 1900.
What is a "street"? *Surveyor*, Sept. 14, 1900.
Elliott (Byron K.), and Elliott (Wm. F.) Treatise on the law of roads and streets. 1900.
Highway maintenance. *Surveyor*, May 24, 1901.

The improvement of roads. *Surveyor*, Aug. 9, 1901.
Maintenance of main roads in urban districts. *Surveyor*, May 10, 1901.
Road reform : proposed Highway Commission and Imperial grants. *Municipal Journal*, Dec. 13, 1901.
The Roads Improvement Association. *Surveyor*, Dec. 13, 1901.
The Roads Improvement Association : its new programme. *Surveyor*, May 17, 1901.
Unenclosed land adjoining highways. *Surveyor*, Nov. 22, 1901.
County Councils Association. A digest of answers to a series of questions with regard to the management of main roads and highways. 1901.
***Roads Improvement Association.** Memorandum on necessary reforms in the existing system of highway administration. 1901. 8vo., pp. 6.
Salter (Clavell) The ownership of the highway ; *with discussion* Surveyors' Institution Transactions, vol. 33, pp. 348–388. 1901.
The laying out of new streets. *Surveyor*, Dec. 19, 1902.
Main road maintenance. *Surveyor*, March 28, Aug. 1, 1902.
Municipal engineering in 1901 : streets and roads. *Surveyor*, Jan. 31, 1902.
The construction of new roads. *Surveyor*, Jan. 2, 1903.
Highway administration : the Departmental Committee. *Surveyor*, Jan. 23, 1903.
The Highways Committee's report. *Surveyor*, Oct. 9, 1903.
Municipal engineering in 1902 : roads and bridges. *Surveyor*, Jan. 30, 1903.
*Property in roadside waste. *Municipal Journal*, July 3, 1903.
Road maintenance and administration. *Surveyor*, April 24, 1903.
Road maintenance difficulties. *Surveyor*, Aug. 14, 1903.
*Road reform . suggested new highway boards—Departmental Committee's report. *Municipal Journal*, Oct. 2, 1903.
*—Also reprinted separately. 1 page.
Stephens (J. E. R.) Digest of highway cases, with all the chief statutes on highways, bridges, and locomotives. 1903. 8vo, pp. 650. 6427.d.2.
Thomas (R. J.). Road maintenance and administration. Society of Engineers. *Surveyor*, April 10, 17, 1903.
Footpaths across fields (correspondence). *Surveyor*, Jan. 1, 8, 1904.
*Highway administration. *Municipal Journal*, Aug. 19, 1904.
Highway diversion. *Surveyor*, Dec. 30, 1904.
Highway repair. *Surveyor*, July 22, 1904.
*Highways protection. *Municipal Journal*, Sept. 2, 1904.
Indictments for non-repair of highways. *Surveyor*, July 15, 1904.
The making of new roads. *Surveyor*, July 15, 1904.
Municipal engineering in 1903 : roads and bridges. *Surveyor*, Jan. 29, 1904.
*National roads : an urgent plea. *Municipal Journal*, April 29, 1904.
*Our trunk roads. *Municipal Journal*, Aug. 12, 1904.
The right to break up streets. *Engineer*, July 22, 1904.
Street construction. *Surveyor*, March 25, 1904.
Liability of highway authorities. *Justice of the Peace*, Nov. 25, Dec. 2, 9, 1905.
Main road maintenance (letter). *Surveyor*, Feb. 3, 1905.
Municipal engineering in 1904 : roads and bridges. *Surveyor*, Jan. 27, 1905.
*Paving works : how they should be paid for. *Municipal Journal*, Jan. 27, 1905.
Relief works in footway construction. *Surveyor*, Dec. 8, 1905.
Road repair : heaps by the roadside, *Surveyor*, Dec. 22, 1905.
*The unemployed and the roads. *Surveyor*, Dec. 15 ; *Municipal Journal*, Dec. 22, 1905.

Copnall (H. H.). Practical guide to the administration of highway law. 1905. 8vo., pp. 616. 6427.d.27.
—(2nd ed.) 1912. pp. 766.
Contract *v.* day labour in road maintenance. *Surveyor*, Feb. 16, 1906.
Excessive road watering. *Surveyor*, March 9, 1906.
Municipal engineering in 1905: roads and bridges. *Surveyor*, Jan. 26, 1906.
Wakelam (H. T.). Road construction, maintenance, improvements, and subsidies. *Surveyor*, July 27, 1906.
The construction of new streets. *Surveyor*, Sept. 27, 1907.
*Contributions to highway maintenance; damage to highways. *Municipal Journal*, Aug. 30, 1907.
Crossings on footpaths. *Surveyor*, June 21, 1907.
High banks and hedges: views of county surveyors. *Surveyor*, Dec. 6, 13, 1907.
Highway boundaries; highways improvement. *Surveyor*, May 31, 1907.
Highways improvement. *Surveyor*, June 7, 1907.
The highways improvement conference. *Surveyor*, May 17, 1907.
The regulation of hedges. *Surveyor*, June 7, 1907.
Roads and bridges in 1906. *Surveyor*, Jan. 25, 1907.
*Town planning: [regulations for construction of streets]. *Municipal Journal*, June 28, 1907.
Wayside ditches. *Surveyor*, Oct. 25, 1907.
Hutchins (G. A.) County roads maintenance. *Surveyor*, Aug. 30, 1907.
Lovegrove (E. J.) A State Road Department: the need for and the services that may be rendered by it. *Surveyor*, April 12, 1907.
***Peddar (D. C.)** No footpath. *Contemporary Review*, Jan., 1907.
Ryves (Reginald A.) (Letter on) highways improvement. *Surveyor*, July 19, 1907.
***U.K. Govt.** Act to amend the Public Health Acts. (Sections 15–33 relate to streets and buildings.) 7 Edw. VII, c. 53. 1907.
Wakelam (T.) In what way could road widenings be facilitated? *Surveyor*, April 19th, 1907, Suppl.
*Direct labour or contract? Practice in various towns. *Municipal Journal*, May 8, June 12., 1908.
International Road Congress. Meeting at Paris. *Nature*, Oct. 22; *Living Age*, Nov. 28, 1908.
Problem of the road. *Blackwood's Magazine*, Sept., 1908.
The road problem. *Living Age*, Sept. 26, 1908.
Bradley (W. F.) What the World's Road Congress deduced. *Automobile*, Nov. 5, 1908, *illus.*
Harris (G. Montagu) and **Wakelam (H. T.).** The first International Road Congress, Paris, 1908. 1908. 8vo., pp. viii, 139.
Jeffreys (W. Rees) Systems of highway administration compared: their influence on cost and efficiency. *Surveyor*, Dec. 11; *Summary* in *Municipal Journal*, Nov. 27; *reprinted separately* by Roads Improvement Association. 1908.
Le Gavrien. Le 1er Congrès International de la Route. *Annales des Ponts et Chaussées*, No. 5.
Loreau (A.) Le Congrès de la Route. *Société des Ingénieurs Civils de France, Mémoires*, Nov., 1908.
***Woods (Francis)** Paris Roads Congress. *Municipal Journal*, Nov. 20, 1908.
*Development Bill. *Municipal Journal*, Sept. 3, 10, 1909.
Highway administration and reform. *Surveyor*, Feb. 26, 1909.
The Road Improvement Bill. *Surveyor*, Sept. 3, 1909.

*The Roads Conference. (Summaries of papers.) *Municipal Journal*, May 7, 1909.

*Rural Councils Conference. *Municipal Journal*, July 9, 1909.
New streets. Extraordinary traffic. Highways and taxation.

A third International Road Congress. *Surveyor*, Sept. 10, 1909.

Fletcher (Austin B.) The first International Road Congress. *Association of Engineering Societies' Journal*, April, 1909, *illus.*

Lewis (Nelson P.) Report on the first International Road Congress. *Engineering News*, Jan. 21, 1909.

***Municipal Journal** (May 7—14) Report of the Roads Conference held in London under the auspices of the County Councils Association. 1909.
Exchequer Grants: by J. Shuttleworth; National roads under Government department, by R. H. Dorman; Collection of Statistics, by C. Montagu Harris; Control and management of main roads, by F. H. Berryman; Highways other than main roads, by Arthur Gladwell; County control and management, by J. Fred. Hawkins; Macadam and tar macadam roads, by Wm. Nisbet Blair; Laying a "tarmac" road, by Albert D. Greatorex; Bituminous binders and tar-spraying, by Henry E. Stilgoe; Road foundations and camber, by H. T. Wakelam; Systematic patching, by J. S. Pickering; Tonnage-life and wear of stones, by John A. Brodie; Road maintenance, by F. G. Carpenter; Wear and tear of motor traffic or roads, by W. J. Taylor; Width of roads and provision of footpaths, by Wm. Harpur.

Paris: International Road Congress. 1er Congrès International de la route, 1908: Compte rendu, et rapports. Paris. 1909. 4to. 4 vols.

Powell (E. P.) Highway economics. *Independent*, Aug. 26, 1909.

Thatcher (J. Wells) and **Hartley (D. H. J.)** The law of the road: being a selection of leading and other cases. 1909. 8vo., pp. xxvii, 175. 6427.e.14.

***U.K. Govt.** Bill to promote the economic development of the United Kingdom and the improvement of roads therein. 1909 (312) i. 681; as amended by Standing Committee C (330) i. 695; Lords' amendments (345) i. 709.

*— Act 9 Edw. VII, c. 47.

*—Report from Standing Committee C on the Development and Road Improvements Fund Bill, with the proceedings of the Committee. 1909 (289) vii. 775.

*—Memorandum dealing with the Development and Road Improvements Fund Bill. 1909 (266) lxxi. 43.

*—Memorandum on existing powers as to making grants for various purposes. 1909 (278) lxxi. 47.

Concerning highways. *Sanitary Record*, Jan. 13, 1910.

Culs-de-sac as highways. *Justice of the Peace*, Nov. 26, 1910.

*The dedication and proof of public rights of way: by Expertus. *Local Government Review*, Oct. 1910.

The future of the Road Board. *Sanitary Record*, Nov. 3, 1910.

Roads and bye-laws. *Contract Journal*, Oct. 5, 1910.

2nd International Road Congress. *Engineering*, Aug. 26, 1910, *et seq.*

Brown (Reginald) The working of the "Road Development Act, 1909." *Society of Engineers*, Dec. 5; *illus.*, *Contractors' Record*, Dec. 7; *Royal Sanitary Institution Transactions*, XXXII i. 1910.

Corthell (E. L.). The 2nd International Road Congress. *Engineering News*, Sept. 1, 1910.

Cowan (P. C.). Report on the First International Road Congress. *Surveyor*, April 15, 1910.

Glen (Alexander) The diversion and stopping up of highways. *Local Government Review*, July, 1910.
Gullan (F. H.) The Brussels Road Congress. *Builder*, Sept. 3, 1910.
Humphreys (H. H.) The highway bridge question. *Commercial Motor*, March 17 and 24, 1910.
Leebody (John W.) Economical supply of road metal. *Surveyor*, April 22, 1910.
Powell (J. G.) The road problem. *Local Government Officer*, Nov. 26, 1910.
Siddalls (J.) Difficulties of highway administration. *Builder*, July 2, 1910.
***U.K. Govt.** Bill to amend the Development and Road Improvement Funds Act, 1909. 1910 (134) i. 375.
*— Act 10 Edw. VII and 1 Geo. V, c. 7.
*—Act to grant certain duties . . . to alter other duties . . . and to make other financial provisions (including application of motor-car spirit duties and motor-car licence duties to road improvements). 10 Edw. VII and 1 Geo. V, c. 8. 1919.
*—Provisional regulations made by the Treasury under the Development and Road Improvements Fund Act, 1909, and section 90 of the Finance (1910–10) Act, 1910. 1910 (185) lix. 353.
2e Congrès International de la Route tenu à Bruxelles en 1910. *Annales des Ponts et Chaussées*, II. 1911.
Blake (E. H.) Some notes on highway law as affecting property owners. Surveyors' Institution, Transactions, Vol. 43. pp. 121–176; *Building News*, Jan. 13, 1911.
***Encyclopædia Britannica** (11th ed.). Article "Highways." 1911.
Gullan (H. F.) Impressions of the Brussels Road Congress: *with discussion*. Association of Municipal and County Engineers, Proceedings, Vol. 37. pp. 184–197. 1911.
Leebody (J. W.) The Road Board circular: *with discussion*. Association of Municipal and County Engineers, Proceedings, Vol. 37. pp. 198–208. 1911.
Robinson (C. M.) The width and arrangement of streets: a study in town planning. 1911. 8vo.
Siddalls (J.) Some modern difficulties of highway administration: *with discussion*. Association of Municipal and County Engineers, Proceedings Vol. 37. pp. 66–82. 1911.
***U.K. Govt.** Road Board, 1st report (May 13th, 1910, to June 30th, 1911); with appendices. 1911 (H.C. 292.)
*—2nd report, to March 31st, 1912. 1912 (H.C. 292).
*—Road Improvement Fund, accounts for 1910–11. 1911 (H.C. 319.)
*—Do. for 1911–12. 1912 (H.C. 289).
Winternitz (Heinrich) 2er Internationaler Strassenkongress in Brüssel, 1910. *Oesterreichische Wochenschrift für die Oeffentliche Baudienst*, Feb. 23, *et seq.*, 1911, *illus.*
Is the Road Board a failure? *Surveyor*, Sept. 20, 1912.
Points from the Road Board's Report. *Surveyor*, Aug. 30, 1912.
Road Board: seventh and eighth list of grants to highway authorities. *Surveyor*, July 12, Oct. 11, 1912.
Sir George Gibb and road maintenance grants. *Surveyor*, Oct. 11, 1912.
Statistical pitfalls: the effect of "maining" upon average costs of road maintenance. *Surveyor*, Sept. 30, 1912.
Statistics of cost of road maintenance. *Surveyor*, Aug. 9, 1912.
3rd International Road Congress. *Surveyor*, July 5, Sept. 13, 1912 (list of contributors).
Work of the Road Board. *Surveyor*, Aug. 23, 1912.
***Owen (Albert Kimsey)** National, and State, auto-highways and their concourse of industries and institutions. 1912. 4to, pp. 88, *map*.
Swinton (G. S. C.) Spread the people. (London Municipal Society.) 1912. 8vo, pp. 54.

GREAT BRITAIN

1. History and Description.

Beeke (Henry) Observations on the Roman roads in Great Britain.
Griffith. On Roads.
Bergier (Nicolas) Histoire des grands chemins de l'Empire Romain . . . [Includes the Roman roads in England]. 1622
—(2nd ed.) Paris, 1628. 4to. 604.f.20.
—(Another ed.) (Latin), 1694. 143.i.12.
—(New ed.) (French), Bruxelles, 1728. 454.a.4—5.
—(English translation), 1712. "The general history of the highways in all parts of the world, more particularly in Great Britain." [Chapter xxx,—The fabulous and the true history of the highways in England]. 1396.g.1. Reprinted 1728, 1736.
Antoninus (Augustus) A commentary on Antoninus his Itinerary or journies of the Romane Empire, so far as it concerneth Britain. By W. Burton, with a chorographical map, etc. 1658. 4to. 455.a.8.
—Antonini Iter Britanniarum commentariis illustratum Thomae Gale. Opus posthumum: revisit, auxit, edidit, R. G[ale]. 1709. 4to. 577.e.1.
—Iter Britanniarum: or that part of the Itinerary of Antoninus which relates to Britain, with a new comment; by the Rev. Thomas Reynolds. Cambridge, 1799. 4to. 984.g.12.
Brome (James) Travels over England, Scotland and Wales. Giving a true and exact description of the chiefest cities, towns, and corporations. 1700. 8vo, pp. 287. 567.e.1.
—(2nd ed.) 1707. 290.a.40.
A description of the most remarkable highways and whole known fairs and mercats in Scotland. As also a description of the highways from one notable town to another, over all England. Edinburgh. 1711. 12mo. 1076.l.10. (9).
Macky (John) A journey through England. In familiar letters from a gentlemen here to his friend abroad. (A journey through Scotland; being the third volume, which completes Great Britain.) 1714-29. 3 vols. (1714, 1722, 1729). 8vo. 797.f.16-18.
—(2nd ed. of vol. I.). 1722. 567.e.1—4.
Defoe (Daniel) A tour through the whole Island of Great Britain divided into circuits. 1724—27. 3 vols. 8vo. 797.f.13—15.
—(3rd ed.) 1742. 4 vols. 12mo. 567.b.1—2.
—(4th ed.) 1748. 4 vols. 12mo. 10348.bb.
—(5th ed.) 1753. 4 vols. 12mo. 10348.bb.
—(7th ed.) "Continued by the late Mr. Richardson, and brought down to the present time by a gentleman of eminence in the literary world." 1769. 12mo. 796.b.3—6.
—(8th ed.) 1778. 4 vols. 8vo. 291.d.8—11.
Gordon (Alexander) Itinerarium Septentrionale; or, a journey thro' most of the Counties of Scotland and those in the North of England. 1726. Fol., pp. 187. 456.g.4 (1).
—Additions and corrections by way of supplement to the Itinerarium. 1732. Fol., pp. 30. 187.d.5;

Horsley (John) Britannia Romana [containing Iter Britanniarum]. 1732. Fol., pp. xxxii, 520. 806.i.1.

Richardi Corinensis monachi Westmonasteriensis de situ Britanniae libri duo. E. Codici MS. descripsit, notisque et indice adornavit Carolus Bertram. [Printed with works of Gildas and Nennius, edited by Charles Julius Bertram]. Copenhagen. 1747.

A forgery, though accepted as genuine by the great antiquarian, Dr. William Stukeley.

—The Description of Britain, translated by H. Hatcher from Richard of Cirencester; with the original treatise, De situ Britanniae: and a Commentary on the Itinerary [by T. Leman.] 1809. 8vo., pp. 166 and 127. 796.h.1.

—Richard of Cirencester on the ancient State of Britain. [Translated from the Latin]. With illustrative notes by J. A. Giles. [Bohn's Antiquarian Library]. 1848. 8vo. 2500.b.

Stukeley (William) An account of Richard of Cirencester . . . and of his works, with his antient map of Roman Brittain; . . . the Itinerary thereof . . . 1757. 4to. 577.h.25 (3).

Geographia Magnae Britanniae; or, correct maps of all the Counties of England, Scotland and Wales, with tables of high and cross roads . . 1748

A new and accurate description of the present Great Roads and the principal Cross-Roads of England and Wales. Commencing at London; . . to which are added the ancient Roman Roads and Stations in Britain. 1756. 8vo. 10349.bb.17.

Paterson (Daniel, *Lt.-Col.*) A new and accurate description of all the direct and principal cross-roads in England and Wales, with parts of the roads of Scotland, to which are added accounts of the towns and villages, the seats of the nobility, and the antiquities and remarkable objects throughout the kingdom. 1771. 8vo. 577.b.16(1).

—(2nd ed.) 1772–3 12mo. 10348.bbb.6.
—(3rd ed.) 1776. 8vo. 10348.ccc.2.
—(4th ed.) 1778. 8vo. 577.b.28.
—(5th ed.) 1781. 8vo. 577.e.6 (4)
—(6th ed.) 1784. 8vo. 577.e.7 (1).
—(Another ed.) 1785 8vo. 577.e.8.
—(7th ed.) 1786 8vo. 577.e.7 (2).
—(8th ed.) 1789. 8vo. 797.g.18 (1).
—(9th ed.) 1792. 8vo. 577.e.9
—(10th ed.) 1794. 8vo. 10348.bbb.7.
—(11th ed.) 1796. 8vo. 10348.bbb.8.
*—(12th ed.) 1799. 577.b.12.
—(12th ed.) 1802. Plagiarised from Cary's (1802), and suppressed.
—(13th ed.) 1803.
—(14th ed.) 1808. 577.e.10.
—(15th ed.) 1811. 10348.d.15.
—(16th ed.) 1822. "Remodelled, augmented and improved . . . by E. Mogg." 577.c.47.
—(17th ed.) 1824. 10349.dd.3.
—(18th ed.) 1826. 10349.f.1.
—(18th ed.) 1829. By E. Mogg. 2 pts. 10348.e.4.
—A travelling dictionary; or, alphabetical tables of the distances of all the principal cities . . . in Great Britain . . . The whole being a 2nd part to the new and accurate description of the roads. 1772. 8vo. 577.b.16 (2).
—(4th ed.) 1781. 8vo., 577.e.6 (1).
—(5th ed.) 1787. 8vo. 577.e.7 (3).

Armstrong (Mostyn John) An actual survey of the Great Post Road between London and Edinburgh, and the country three miles on each side. 1776. 8vo. 195.a.7.

Owen (William) New book of roads; or, a description of the roads of Great Britain. 1782. 12mo.

—(3rd ed.) 1782.

—(Another ed.) 1805. 10348.a.8.

—(Another ed.) 1808. 10347.aaa.4 (2).

—(Another ed.) 1814.

—(Another ed.) 1817.

—(Another ed.) 1822.

—(Another ed.) 1827. 10349.bb.45.

—(Another ed.) 1840.

Pride (Thomas) and **Luckombe, (Philip)** The traveller's companion; or, a new itinerary of England and Wales, with part of Scotland, showing the principal roads in Great Britain. 1789. 8vo. 2 *maps*. 577.e.38.

Latocnaye (—de) Promenade autour de la Grande Bretagne . . . Par un Officier français. Edinburgh, 1795. 8vo., pp. 318. 792.h.3.

—(2nd ed.) Brunswick. 1801. 10349.e.1.

Skrine (Henry) Three successive tours in the North of England, and great part of Scotland . . . 4to. 455.a.9.

Cary (John) Cary's New Itinerary; or, an accurate delineation of the Great Roads throughout England and Wales, with many of the principal roads in Scotland, from actual admeasurements. 1798. 8vo. 290.a.23.

["First made by command of his Majesty's Postmaster-General for official purposes in connection with the mail coaches. Some of the southern cross roads were measured by a peculiar method, since the compiler engaged the services of George Wilson, a celebrated pedestrian, who claimed to estimate distances most exactly by the time occupied in walking from one place to another."—Webb.]

—(2nd ed.) 1802. 577.b.20.

—(3rd ed.) 1806. 577.b.21.

—(5th ed.) 1812.

—(6th ed.) 1815. 10348.bbb.21. *Royal Automobile Club.*

—(7th ed.) 1817. 10348.cc.13.

—(8th ed.) 1819. 577.b.22.

—(9th ed.) 1821. 577.b.22.

—(10th ed.) 1826. 577.e.12.

—(11th ed.) 1828. 10348.d.9.

Baker (James) The Imperial Guide; with picturesque plans of the Great Post Roads . . . 1802. 8vo. 2 parts. 291.i.27.

Warner (Richard) A tour through the Northern Counties of England and the Borders of Scotland. Bath. 1802. 2 vols. 8vo. 293.k.9.

Cary (John) Cary's British Traveller; or, an abridged edition of his new itinerary, containing the roads . . . throughout England and Wales, with many of the principal roads in Scotland. 1803. 8vo. 577.b.24.

Wallis (James) (*publ.*) Wallis's Pocket Itinerary: being a neat and accurate guide to all the principal direct and cross roads throughout England, Wales and Scotland. [By T. H. Horne.] 1803. 12mo. 797.a.38.

Cary (John) Pocket companion to the roads of Great Britain, showing all the post and market towns. 1804. *Map in case.*

Lysons (Daniel and Samuel) Magna Britannia: being a concise topographical account of the several counties of Great Britain. 1806–22. 4to., 6 vols., *illus.* 2061.e.

Mogg (Edward) A survey of the High Roads of England and Wales with part of Scotland. Nos. 1–10 (pp. 1–162). 1814–15. 4to. 1215 (1568).

The North of England and Scotland in 1704. (A Journal). Edinburgh. 1818. 16mo., pp. 71. 10369.bb.

Principal roads through Scotland, from Edinburgh, Glasgow, etc. . . . .; great roads to London . . . 2nd ed. Edinburgh. 1823. 12mo. 10369.a.37.

Dupin (Baron Charles) Voyages dans la Grande Bretagne, Vols. 5 et 6, 3e partie. "Force Commerciale," T. Ier, "Voies Publiques." Paris. 1824. 4to. 792.i.1. Atlas (fol.)., 792.m.1.

***Gray (George Carrington)** Gray's new book of the roads; the tourists' and travellers' guide to the roads of England and Wales and part of Scotland, on an entirely new plan . . . 1824. 12mo. 46 maps pp. irreg.

Leigh (Samuel) Leigh's New Pocket Road-Book of England and Wales, and part of Scotland . . . 1825. 8vo. 577.a.28.

—(3rd ed.) 1831. 12mo. 577.a.29.

—(4th ed.) 1833.

—(6th ed.) 1837. 12mo. 577.a.30.

—(7th ed.) 1839. 12mo. 796.b.11.

Mogg (Edward) Mogg's Pocket Itinerary of the Direct and Cross Roads of England and Wales, with part of the roads of Scotland. 1826. 12mo. 577.a.31.

Smith (Charles) New Pocket Companion to the Roads of England and Wales, and part of Scotland . . . With an index containing the distances from London, the market-days, and principal inns. 1826. 8vo. 577.b.37.

***Cobbett (William)** Cobbett's Tour in Scotland and in the four Northern Counties of England . . . 1832. 1833. 12mo. 567.b.24.

Grahame (Thomas) Treatise on internal intercourse in civilised states, particularly in Great Britain. Part I. 1834. 8vo. T.1515 (5).

Simms (Frederick Walter) (*ed.*). Public Works of Great Britain, consisting of railways, bridges, canals, docks, and other important engineering works . . . 1838. fol., 4 parts. 551.g.9.

*—(2nd ed.) 1846. pp. 72, 32, 24 and 70; 153 plates.

H., A. The Roman Roads in England, with the ancient and modern names attached to each station upon or near the route. 1852. 8vo. 10350.d.36 (5).

Bradshaw (George) Bradshaw's Itinerary of Great Britain . . . to and from every town, village, and parish . . . for 1856 (*et seq.*). 1856. 12mo. P.P.2500.ab.

Guest (Edwin) The four Roman Ways [in Britain]. 1858 (?) *Archæological Journal*, Vol. XIV, p. 99.

Smiles (Samuel) Lives of the engineers . . . (Vol. I, part 3, Early roads and modes of travelling; Vol. II, part 8, Life of Thomas Telford). 1861–2. 8vo. 3 vols. 2039.e.

*—(New ed.) 1874. 5 vols. 2406.a.

Smiles (Samuel) Life of T. Telford, Civil Engineer, with an introductory history of roads and travelling in Great Britain. 1867. 8vo. *illus.* 10825.bb.30.

Meyer (M.) Reisehandbuch für London, England und Schottland, von E. G. Ravenstein. Hildburghausen. 1870. 8vo.

—(2nd ed.) 1871.

Malet (Harold Esdaile) Annals of the road, or, notes on mail and stage coaching in Great Britain; to which are added Essays on the Road, by "Nimrod" (C. Apperley). 1876. 8vo. *illus.* 7906.ee.1.

British High Roads, arranged for the use of tourists (part 1). 1877. 8vo. 10347.b.

Spencer (Charles) The Bicycle Road-Book; compiled for the use of bicyclists and pedestrians. Being a complete guide to the roads of England, Scotland, and Wales. 1880. 8vo., pp. 188. 10347.bb.3.

—(New ed.) 1881. pp. 219. 10352.g.1.

—(Another ed.) 1882. pp. 221. 10347.aaa.17.

—(Another ed.) 1883. pp. 221. 10347.bb.13.

—(Another ed.) 1891. pp. 222. 10347.cc.19.

—(Another ed.) 1904. "Cyclists' and Automobilists' Road Book." 8vo., pp. 219. 10351.aa.66.

—(Another ed.) 1911–12.

Delittle (F. R.) Cyclists' pocket road-book for England, Wales and Scotland. 1893. 12mo., pp. 244. 10347.aa.35.

The Great North Road from London to Edinburgh. *Chambers's Journal*, Nov. 9, 1894.

Mawson, Swan and **Morgan.** Itinerary of the Great North Road, London to Edinburgh, etc. Newcastle. 1896. 8vo., pp. 288. 10348.ccc.65.

McAnally (D. R.) The Roman highways. *Appleton's Popular Science Monthly*, June, 1898.

***Paley (W. B.)** The Roman roads of Britain. *Nineteenth Century*, Nov., 1898. *Map.*

Inglis (Harry R. G.) Contour road-book of Great Britain. 1900. 6″. 2 vols. *Maps, plans.*

Road coach guide; handbook to the London, provincial, Scotch and Welsh coaches. 1900. 8vo. P.P.2498.l.

Codrington (Thomas) Roman roads in Britain. 1903. 12mo., pp. 392.

Forbes (Urquhart A.), and **Burmester (Arnold C.)** Old Roman highways. 1904. 8vo., pp. xviii, 259.

Harper (C. G.). The London, Manchester and Glasgow Road: "This way to Gretna Green." 1907. 2 vols. 10349.dd.11.

***Encyclopædia Britannica,** (11th ed.). Article "Britain." [Gives description of Roman Roads.] 1911.

2. Administration.

***Great Britain Govt.** Act for making the laws for repairing the highways more effectual. 1 Geo. I, c. 52. 1715.

The laws concerning travelling. 1718. 12mo., pp. 237. 6425.de.3.

***Great Britain Govt.** Act for making more effectual the several acts past for repairing and amending the highways of this kingdom. 5 Geo. I, c. 12. 1719.

The laws relating to the highways . . . Done in alphabetical method from the Common and Statute Law, and Books of Reports. 1720. 12mo. 506.a.33.

***Great Britain Govt.** Act for punishing such persons as shall wilfully and maliciously pull down or destroy turnpikes for repairing highways, or locks, or other works erected by authority of Parliament for making rivers navigable. 1 Geo. II, c. 19. 1728.

***Great Britain Govt.** Act to explain, amend, and render more effectual an act of Geo. II, intituled "An act for punishing such persons as shall wilfully and maliciously pull down or destroy turnpikes for repairing highways . . ." 5 Geo. II, c. 33. 1732.

*—Act to explain and make more effectual the laws in being to oblige the possessors of land adjacent to common highways to cut and keep low such hedges as are adjoining to the said highways. 7 Geo. II, c. 9. 1734.

*—Act for reviving and continuing the acts therein mentioned, and for explaining and amending a clause in an act of 1 Geo. I, intituled "An act for making the laws for repairing the highways more effectual" . . . . 9 Geo. II, c. 18. 1736.

Scheme for reducing all the laws relating to the common highways into one Act of Parliament, and for providing more effectually for the due execution of the said laws. 1738. 8vo., pp. 80.

***Great Britain Govt.** Act to continue several laws therein mentioned for punishing such persons as shall wilfully and maliciously pull down or destroy turnpikes for repairing highways . . . [and for other purposes in no way connected therewith]. 113 Geo. II, c. 18. 1740.

*—Act to supply some defects in the laws for repairing and rebuilding county bridges, for repairing, enlarging, erecting, and providing houses of correction, and for passing rogues and vagabonds. 1741. 14 Geo. II., c. 33.

Phil'Anglus. The contrast: also further considerations on the concern for trade. With proposals how to amend . . . the laws for the preservation of the publick roads, and to preserve trade. In two letters to a Member. 1746. 8vo. 1139.l.11. (2).

Newball (John) A concern for trade, and the various consequences relating to the encrease and decrease and the equal and unequal circulation of trade. Also, remarks on the Bill, entitled, a Bill to amend . . . the laws . . for the preservation of the publick Roads . . . Stamford. 1746.? 8vo. 1139.l.11 (1).

Shapleigh (John) Highways: a treatise showing the hardships and inconveniences of presenting or indicating parishes, towns, etc., for not repairing the highways. 1749. 8vo., pp. 64. 101.k.62.

Proposals at large for the easy and effectual amendment of the roads by some further necessary laws and regulations concerning the wheels of all carriages . . . . By a Gentleman. 1753. 8vo. 8776. c.

—An Appendix; or further reasons in support of the plan or proposals for the amendment of the roads by way of answer to several objections. By a Gentleman. 1756.

***Great Britain Govt.** Act for the amendment and preservation of the publick highways and turnpike roads of this kingdom, and for the more effectual execution of the laws relating thereto. 26 Geo. II, c. 30. 1753.

*—Act for the preventing of the inconveniences and dangers that may arise from the present methods of digging gravel, sand, stone, chalk, and other materials, on the several commons and waste grounds within this kingdom, for the repair of the highways, and for other purposes. 26 Geo. II, c. 28. 1753.

*—Act for making perpetual several laws for punishment of persons destroying turnpikes, locks, or other works erected by authority of Parliament [and for several other purposes in no way connected therewith]. 27 Geo. IV, c. 16. 1754.

—Published separately. 8vo., pp. 7. 1044.b.2 (2).

***Great Britain Govt.** Act to amend an act of 26 Geo. II, intituled "An act for the amendment and preservation of the publick highways and turnpike roads of this kingdom, and for the more effectual execution of the laws relating thereto." 28 Geo. III, c. 17. 1755.

*—Act to render more effectual the several laws now in being for the amendment and preservation of the publick highways and turnpike roads of this kingdom. 30 Geo. II, c. 28. 1757.

—Collection of road acts, 26–31 Geo. II, not printed in the General Collection of Public Acts. 1760. Fol., 8 vols. N.R.

*—Act to explain, amend, and render more effectual c. 21 of 2 Geo. III. 3 Geo. III, c. 23. 1763.

Hawkins, John (afterwards **Sir**) Observations on the state of the highways, and on the laws for amending and keeping them in repair. with a draught of a bill for . . reducing into one act . . . the most essential parts of all the statutes in force relating to the highways. 1763. 8vo. 517.f.13 (1).

***Great Britain Govt.** Act to continue part of an act of 30 Geo. II, intituled "An act to render more effectual the several laws now in being for the amendment and preservation of the publick highways and turnpike roads of this kingdom, and for making further provisions for the preservation of the said roads." 5 Geo. III, c. 38. 1765.

Whitworth (R.). Some remarks upon a plan of a bill proposed to Parliament for amending the highways by assessment instead of six days' labour. 1765.

***Great Britain Govt.** Act for explaining, amending, and further enforcing the execution of two several acts of 26 Geo. II, and 5 Geo. III, for the amendment and preservation of the publick highways and turnpike roads of this kingdom, and for obliging mortgagees taking possession of toll-gates on turnpike roads, and toll-gatherers appointed by them, to account. 6 Geo. III, c. 43. 1766.

Homer (Henry, *senior*) An essay on the nature and method of ascertaining the specific shares of proprietors upon the inclosure of common fields, with an inquiry into the means of preserving and improving the public roads. 1766. 8vo., pp. 87. T.1959. (1).

—(2nd ed.) 1769. Oxford. 1028.c.9. (1).

The laws of highways and turnpike roads, containing the two acts made in the last session of Parliament . . . (7 Geo. III, c. 40 and 42). Together with a variety of precedents . . . and likewise many cases determined in the Court of King's Bench since the time of Lord Mansfield's coming to preside in it. 1767. 8vo., pp. 119. 6425.c.8.

Homer (Henry, *senior*) Enquiry into the means of preserving and improving the public roads of this kingdom. Oxford. 1767. 8vo. 1028.c.9. (2).

***Great Britain Govt.** Act to explain, amend, and reduce into one act of Parliament the general laws now in being for regulating the turnpike roads of this kingdom, and for other purposes therein mentioned. 7 Geo. III, c. 40. 1767.

—Reprinted, with c. 42, in 1769. 8vo., pp. 125. 6376.b.14.

*—Act to explain, amend, and reduce into one act of Parliament the several statutes now in being for the amendment and preservation of the publick highways of this kingdom, and for other purposes therein mentioned. 7 Geo. III, c. 42. 1767.

Bayley (Thomas Butterworth) Observations on the General Highway and Turnpike Acts (13 Geo. III, c. 78 and c. 84). 1773. 8vo. 115.f.41.

*__Great Britain Govt.__ Act for limiting the exemptions from toll (granted by any act or acts for repairing turnpike roads on account of cattle going to and from water or pasture. 17 Geo. III, c. 16. 1777.

Scott (John) Digests of the General Highways and Turnpike laws . . . with remarks. Also an appendix. 1778. 8vo. 517.f.12.

*__Great Britain Govt.__ Act for enabling trustees under particular turnpike acts to meet and carry such acts into execution, notwithstanding they may not have met or adjourned agreeable to the directions of such acts; and for preventing disputes touching the payment of tolls for horses or carriages belonging to or employed by officers or soldiers on duty. 18 Geo. III, c. 63. 1778.

*—Act to exempt carriages carrying the mail from paying tolls at any turnpike gate in Great Britain. 25 Geo. III, c. 57. 1785.

Godschall (William Man) A general plan of parochial and provincial police; with instructions to overseers and constables . . . 1787. 8vo. 288.c.7.

Newton (Everard) The whole duty of parish officers, containing all the laws now in force relative to . . . surveyors of highways. 1792. 8vo.

Great Britain Govt. Report on minutes of evidence taken before the Committee appointed to consider the Turnpike Acts, 13 and 14 George III. 1795-6. No. 132, Vol. xlviii. General Collection.

The duty of surveyors of highways, in a charge to be delivered to them at their appointment, being first signed and sealed by the justices in their Petty Sessions. By a County Magistrate. 1798.

—(3rd ed.) 1807. 1102.k.23.

Great Britain Govt. Report on the general turnpike acts. 1798. No. 147, Vol. lvii, General Collection.

The Surveyor's appointment and guide, with an arrangement of his duty and an abstract of the Act 13 Geo. III, c. 78, and 34 Geo. III, c. 74, for amendment and preservation of the highways . . . 1799. (6th ed.) 4to. 517.f.13.(2).

Great Britain Govt. Report on the general highway acts. No. 165, Vol. lvii. General Collection. 1799–1800.

*—Act for continuing, until 1st June, 1801, the several acts for regulating the turnpike roads in Great Britain. 41 Geo. III, c. 26. 1800.

*—Report from the Committee on the general highway and turnpike acts. 1st series, Vol. x. pp. 759–760. 1800.

Deals with authorities and officials concerned in administration of roads, and with weighing engines.

Bird (James Barry) The laws respecting highways and turnpike roads, of changing, stopping and repairing highways, etc. 1801. 8vo. 228.f.23.

—(3rd ed.) 1816.

Bird (James Barry) The laws respecting travellers and travelling, comprising all the cases and statutes. 1801. 8vo. 228.e.17.

—(2nd ed.). 1811.

—(Another ed.) 1819.

*__U.K. Govt.__ Bill to amend the act for compounding for statute duty (on roads). 1804 (31) i. 113.

*__Dawes (Henry)__ To the Commissioners of turnpike roads. 1807. 8vo., pp. 16, *plate*.

Plan for establishing houses for road-menders at intervals of one mile along the highways, each man repairing the road for half a mile on each side of his cottage.

*U.K. Govt. Reports (7) on the state of the highways of the kingdom. 1808–21.
*—1st. 1808 (225) ii. 333.
*—2nd. 1808 (275) ii. 459.
*—3rd. 1808 (315) ii. 527.
*—4th. 1810–11 (240) iii. 855.
*—5th. On the management of turnpike trusts, and formation of roads. 1819 (509) v. 339.
*—6th. On the improvements in the management of roads. 1820(301) ii.301.
*—7th. 1821 (747) iv. 343.
*U.K. Govt. Report from Committee on Mr. Telford's "Survey and Report" relative to the Carlisle and Portpatrick roads. (With large atlas of plans.) 1809 (269) iii. 593.
*U.K. Govt. Bill respecting occupiers of land adjoining highways. 1810 (200) i. 223.
*U.K. Govt. Report on the roads between Carlisle and Portpatrick. 1811 (119) iii. 789.
*U.K. Govt. Bill to amend and explain the act for the amendment and preservation of highways, so far as relates to presentments and indictments for nuisances, and for the prompt removal of snow from highways. 1814 (216) ii. 621.
*—Bill to amend the act for the amendment and preservation of public highways. 1814 (154, 176) ii. 611, 615.
*—Papers relating to parochial and district assessments for paving, lighting and cleansing the streets within the bills of mortality. 1814 (355) xii. 285.
*U.K. Govt. Bill to amend an act of 13 Geo. III, for the amendment and preservation of the public highways, so far as the same relates to notice of appeal against turning or diverting a public highway; and to extend the provisions of the same act to the stopping up of unnecessary roads. 1815 (173, 270) i. 217, 221.
*— Act 55 Geo. III, c. 68.
*—Report and evidence respecting Carlisle and Glasgow road. 1815 (463) iii. 331.
*U.K. Govt. Act to alter the application of part of the sum of £50,000 granted by an act of 56 Geo. III, intituled an act for improving the road from Glasgow to Carlisle. 58 Geo. III, c. 44. 1819.
*U.K. Govt. Bill for the improvement of the roads from London to Edinburgh, and from London to Portpatrick, and for further improvement of the roads from London to Holyhead and from London to Liverpool. 1830 (435, 494) ii. 413 435.
*U.K. Govt. Act to continue certain turnpike acts in Great Britain. 1 and 2 Gul. IV, c. 6. 1831.
*U.K. Govt. Account of turnpike trusts in Great Britain indebted to the Exchequer Bill Loan Commissioners. 1833 (in 703—Appx.) xv. 614.
*U.K. Govt. Bill for continuing acts for regulating the turnpike roads in Great Britain. 1834 (10) iv. 435.
*— Act 4 and 5 Gul. IV. c. 10.
*U.K. Govt. Bill for continuing acts for regulating the turnpike roads in Great Britain. 1835 (436, 484) iv. 535, 537.
*— Act 5 and 6 Gul. IV, c. 49
*U.K. Govt. Amount of debt affecting the turnpike road from Glasgow to Carlisle. 1836 (480) xlvii. 267.
*—Bill for continuing acts for regulating the turnpike roads in Great Britain. 1836 (452) vi. 417.
*—Act 6 and 7 Gul. IV, c. 62.
*U.K. Govt. Bill for continuing acts for regulating the turnpike roads in Great Britain. 1837 (223) iv. 519.
Act 1 Vict., c. 18.

*U.K. Govt. Bill for continuing acts for regulating the turnpike roads in Great Britain. 1838 (603) vi. 573.
*U.K. Govt. Bill for continuing acts for regulating the turnpike roads in Great Britain. 1839 (368) v. 517.
*U.K. Govt. Act to continue certain turnpike acts in Great Britain. 3 and 4 Vict., c. 45. 1840.
*U.K. Govt. Bill for continuing acts for regulating the turnpike roads in Great Britain. 1841 (76) iii. 525.
*— Act 4 and 5 Vict., c. 9.
*U.K. Govt. Bill for continuing acts for regulating the turnpike roads in Great Britain. 1842 (421) iv. 357.
*— Act 5 and 6 Vict., c. 60.
*U.K. Govt. Bill for continuing acts for regulating the turnpike roads in Great Britain. 1843 (505) iv. 493.
*— Act 6 and 7 Vict., c. 69.
*U.K. Govt. Bill for continuing Acts for regulating the turnpike roads in Great Britain. 1844 (434) iv. 735.
*— Act 7 and 8 Vict., c. 41.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain. 1845 (498) vi. 233.
*— Act 8 and 9 Vict., c. 53.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain. 1846 (545) iv. 479.
*— Act 9 and 10 Vict., c. 51.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain. 1847 (421) iv. 373.
*— Act 10 and 11 Vict., c. 105
*—Minutes of proceedings of the Select Committee on the Highways Bill. 1847 (683) viii. 183.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain, 1847–8 (573) vi. 481.
*— Act 11 and 12 Vict., c. 96.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain, 1849 (454) vi. 559.
*— Act 12 and 13 Vict., c. 87.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain, and to make further provisions respecting turnpike roads in England. 1850 (520, 675) viii. 429, 439.
*— Act 13 and 14 Vict., c. 79.
*—Copies of reports of the Admiralty made under the Preliminary Inquiries Act, 11 and 12 Vict., c. 129. 1850.
Inverness Bridges Bill (75–5) xxx. 139.
South Portland Street Suspension Bridge Bill (75–6) xxx. 141.
Westminster Temporary Bridge Bill (75–25) xxx. 245.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain, 1851 (495) vi. 283.
*— Act 14 and 15 Vict., c. 37.
*—Copies of reports to the Admiralty made under the Preliminary Inquiries Act, 11 and 12 Vict., c. 129. 1851.
Hayling Bridge and Causeway Bill (63–15) xxix. 143.
Inverness Bridge Bill (63–46) xxix. 253.
*—Return showing the several amounts borrowed from the Public Works Loan Commissioners (and not wholly repaid) by turnpike trusts in England and Wales, the date of each loan, the rate of interest, the amount of principal repaid, and the amount of principal, also of interest, remaining unpaid on 5th January, 1851; and a similar return for Scotland. 1851 (596) xxxi. 527.

*U.K. Govt. Bill to continue certain turnpike acts in Great Britain. 1852 (351) iv. 403.
*— Act 15 and 16 Vict., c. 58.
*U.K. Govt. Return showing the several amounts borrowed from the Public Works Loan Commissioners, and not wholly repaid, by turnpike trusts in England and Wales and Scotland; date of each loan, rate of interest, amount of principal repaid, and of interest and principal remaining unpaid on 5th January, 1852. 1852 (584) xliv. 301.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain, and to make further provisions concerning turnpike roads in England. 1853 (764) vii. 443.
*— Act 16 and 17 Vict., c. 135.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain, and to make further provisions concerning turnpike roads in England. 1854 (194) vi. 517.
*— Act 17 and 18 Vict., c. 58.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain, and to make further provisions concerning turnpike roads in England. 1855 (227, 276) vi. 291, 299.
*— Act 18 and 19 Vict., c. 98.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain. 1856 (214) vi. 495.
*— Act 19 and 20 Vict., c. 49.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain. 1857 (125, Sess. 2) iv. 641.
*— Act 20 and 21 Vict., c. 24.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain. 1858 (213) iv. 639.
*— Act 21 and 22 Vict., c. 63.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain. 1859 (93, Sess. 2) ii. 455.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain, and to extend the provisions of the Act of 14 and 15 Vict., c. 38. 1860 (252) vi. 697.
*— Act 23 and 24 Vict., c. 73.
*U.K. Govt. Bill to continue turnpike acts in Great Britain. 1861 (225) iv. 575.
*— Act 24 and 25 Vict., c. 64.
*—Act to exempt the volunteer forces of Great Britain from the payment of tolls. 24 and 25 Vict., c. 126. 1861.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain. 1862 (184) v. 463.
*— Act 25 and 26 Vict., c. 72.
*U.K. Govt. Bill to amend the law relating to the repair of turnpike roads in England, and to continue certain turnpike acts in Great Britain. 1863 (228) v. 225.
*— Act 26 and 27 Vict., c. 94.
*U.K. Govt. Bill to amend the law relating to certain nuisances [locomotives] on turnpike roads, and to continue certain turnpike acts in Great Britain. 1864 (194) iv. 559.
*— Act 27 and 28 Vict., c. 75.
*U.K. Govt. Bill to continue certain turnpike acts in Great Britain. 1865 (227) iv. 563.
*—Act 28 and 29 Vict., c. 107.

U.K. Govt. Bill to continue certain turnpike roads in Great Britain, and to make further provision concerning turnpike roads. 1866 (229) v. 488.
*— Act 29 and 30 Vict., c. 105.
U.K. Govt. Bill to continue certain turnpike acts in Great Britain, to repeal certain other turnpike acts, and to make further provision concerning turnpike roads. 1867 (232) vi. 475.
*— Act 30 and 31 Vict., c. 121.
U.K. Govt. Bill to continue certain turnpike acts in Great Britain, and to repeal certain other turnpike acts, and to make further provisions concerning turnpike roads. 1868 (149) v. 597.
*— Act 31 and 32 Vict., c. 99.
U.K. Govt. Bill to continue certain turnpike acts in Great Britain, to repeal certain other turnpike acts, and to make further provisions concerning turnpike roads. 1869 (191) v. 331.
*— Act 32 and 33 Vict., c. 90.
—Report from the Select Committee appointed to inquire into schedules of the Annual Turnpike Acts Continuance Act, 1868; with the proceedings of the Committee. 1869 (262) xi. 655.
U.K. Govt. Bill to continue certain turnpike acts in Great Britain, to repeal certain other turnpike acts, and to make further provisions concerning turnpike roads. 1870 (125) iv. 705.
*— Act 33 and 34 Vict., c. 73.
U.K. Govt. Bill to continue certain turnpike acts in Great Britain, to repeal certain other turnpike acts, and to make further provisions concerning turnpike roads. 1871 (247) vi. 489.
*— Act 34 and 35 Vict., c. 115.
—Report from the Select Committee on turnpike acts continuance, with the proceedings of the Committee. 1871 (244) xii. 711.
U.K. Govt. Bill to continue certain turnpike acts in Great Britain, to repeal certain other turnpike acts, and to make further provisions concerning turnpike roads. 1872 (245) vi. 383.
*— Act 35 and 36 Vict., c. 85.
—Report from the Select Committee on turnpike acts continuance, with the proceedings of the Committee. 1872 (184) xii. 439.
U.K. Govt. Bill to continue certain turnpike acts in Great Britain, to repeal certain other turnpike acts, and for other purposes connected therewith. 1873 (199) vi. 215.
*— Act 36 and 37 Vict., c. 90.
—Report from the Select Committee on turnpike acts continuance, with the proceedings of the Committee. 1873 (215) xvii 859.
U.K. Govt. Bill to continue certain turnpike acts in Great Britain, and to repeal certain other turnpike acts, and for other purposes, connected therewith. 1874 (186) v. 439.
*— Act 37 and 38 Vict., c. 95.
*—Report from the Select Committee on turnpike acts continuance, with the proceedings of the Committee. 1874 (205) xi. 565.
U.K. Govt. Bill to continue certain turnpike acts in Great Britain, and to repeal certain other turnpike acts, and for other purposes connected therewith. 1875 (216) vii. 305.
*— Act 38 and 39 Vict., c. 194.
*—Report from the Select Committee on turnpike acts continuance, with the proceedings of the Committee. 1875 (208) xiv. 545.
U.K. Govt. Bill to continue certain turnpike acts in Great Britain, and to repeal certain other turnpike acts, and for other purposes connected therewith. 1876 (209) vii. 373.
*— Act 39 and 40 Vict., c. 39.
*—Report from the Select Committee on turnpike acts continuance, with the proceedings of the Committee. 1876 (241) xiv. 571.

U.K. Govt. Bill to continue certain turnpike acts in Great Britain and to repeal certain other turnpike acts, and for other purposes connected therewith. 1877 (204) vii. 137.

*— Act 40 and 41 Vict., c. 64.

—Report from the Select Committee on turnpike acts continuance, with the proceedings of the Committee. 1877 (207) xvii. 573.

U.K. Govt. Bill to continue certain turnpike acts, and to repeal certain other turnpike acts, and for other purposes connected therewith. 1878 (245) ix. 8.

*— Act 41 and 42 Vict., c. 62.

*—Report from the Select Committee on turnpike acts continuance, with the proceedings of the Committee. 1878 (169) xviii. 623.

U.K. Govt. Bill to continue certain turnpike acts, and to repeal certain other turnpike acts, and for other purposes connected therewith. 1879 (239) vii. 561.

*— Act, 42 and 43 Vict., c. 46.

*—Report from the Select Committee on turnpike acts continuance, with the proceedings of the Committee. 1879 (243) xiv. 195.

***U.K. Govt.** Bill to continue certain turnpike acts, and to repeal certain other turnpike acts, and for other purposes connected therewith. 1880 (260) vii. 559.

*— Act 43 and 44 Vict., c. 12.

*—Report from the Select Committee on turnpike acts continuance, with the proceedings. 1880 (133) xii. 715.

U.K. Govt. Bill to continue certain turnpike acts, and to repeal certain other turnpike acts, and for other purposes connected therewith. 1881 (206) vi. 473.

*— Act 44 and 45 Vict., c. 31.

—Report from the Select Committee appointed to inquire into the 5th and 6th schedules of the Annual Turnpike Acts Continuance Act, 1880, with the proceedings. 1881 (210) xii. 621.

U.K. Govt. Bill to continue certain turnpike acts, and to repeal certain other turnpike acts, and for other purposes connected therewith, 1882 (233) vi. 651.

*— Act 45 and 46 Vict., c. 52.

—Report from the Select Committee on turnpike acts continuance, with the proceedings. 1882 (178) xiii. 713.

U.K. Govt. Bill to continue certain turnpike acts, and to repeal certain other turnpike acts, and for other purposes connected therewith. 1883 (231) x. 463.

*— Act 46 and 47 Vict., c. 21.

—Report from the Select Committee on turnpike acts continuance, with the proceedings. 1883 (153) xiv. 571.

U.K. Govt. Bill to continue certain turnpike acts, and to repeal certain other turnpike acts, and for other purposes connected therewith. 1884 (294) vii. 557.

*— Act 47 and 48 Vict., c. 52.

—Report from the Select Committee on turnpike acts continuance, with the proceedings. 1884 (173) xvi. 583.

U.K. Govt. Bill to continue certain turnpike acts, and to repeal certain other turnpike acts, and for other purposes connected therewith. 1885 (218) vi. 409.

*— Act 48 and 49 Vict., c. 37.

—Report from the Select Committee on turnpike acts continuance, with the proceedings. 1885 (187) xii. 375.

U.K. Govt. Joint determination of the Secretary of State for the Home Department and of the Secretary for Scotland, with respect to the Glasgow and Carlisle Turnpike Road Trust. 1893 (63) lxxvii. 1213.

ENGLAND AND WALES

1. History and Description

Leland (John) The laboryouse journey and serche of Johan Leylande for Englandes Antiquities. 1549. 8vo. B. L. 291.a.48.
—The Itinerary of J. Leland, publish'd by T. Hearne. To which is prefix'd Mr. Leland's New Year's Gift. (A discourse concerning some antiquities lately found in Yorkshire.) Oxford, 1710–12. 9 vols., 8vo. 796.g. 1–3.
—(2nd ed.) Collated and improved from the original MS. (Reprinted from Hearne's edition). Oxford. 1744–45. 9 vols., 8vo. 2072.a.
—(3rd ed.) Oxford. 1770. 9 vols., 8vo. 165.g.15–18.
Saxton (Christopher) [Series of 35 coloured maps of England and Wales.] 1579. Fol. C.43.i.1.(1).
—(Another copy.) Maps uncoloured. G. 3604.
Norden (John) Speculum Britanniae. I. An historicall . description of Middlesex . . 1593. 4to., pp. 50, *illus.* c.32.b.4.(1).
Norden (John) Speculi Britanniae pars: the description of Hartfordshire. 1598. 4to., pp. 31, map. c. 28. g.6.
—Reprinted in 1903.
—(Another ed.) 1723. Speculum Britanniae: an historical and chorographical description of Middlesex and Hartfordshire . . . illustrated with maps . . . 4to., 3 pts. 577.h.16.
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—(Another issue.) 1728. Speculi Britanniae pars: a topographical and chorographical description of Cornwall, with a map of the county and each hundred . . . 4to., pp. 104 and 7. G. 4053.
—Continuation. 1840. Speculi Britanniae pars: an historical and chorographical description of the County of Essex . . . Edited by Sir H. Ellis (Camden Society, Vol. IX.). 4to. Ac. 8113–9.
Hentzner (Paul) Itinerarium Germaniae, Galliae, Angliae, Italiae, etc. Nuremburg. 1612. 4to., pp. 418. G.2581.
—(Another ed.) Breslau. 1617. 1426.g.
—(Another ed.) Nuremburg. 1629. 8vo. 1049.f.1.
—(Another ed.) 1757. A journey into England in the year 1598: [being a part of the itinerary of Paul Hentzner, translated by R. Bentley, edited by H. Walpole, Earl of Orford.] *Latin and English.* Strawberry Hill. 8vo., pp. x, 103. 1049.f.2.
—(Another ed.) 1762. A journey into England in the year 1598. (Fugitive Pieces on various subjects, Vol. II.) Dublin. 8vo. 12352.ee.21.
—(Another ed.) 1765. 8vo. 12352.f.17.
—(3rd ed.) 1771. 8vo. 12315.bb.40.
—(Another ed.) 1797. P. Hentzner's Travels in England during the reign of Elizabeth, translated by Horace, late Earl of Orford. 8vo. 1430 d.
—(Another ed.) 1807. Reading. 4to, pp. 3, iii. 56. 701.h.3.

[A geographical and statistical description of all the counties of England and Wales, in alphabetical order.) 1615. 8vo.

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—Reprinted 1636, without alteration.

—(Another ed.). 1643. Has 37 pages and a folding table of highways. 4to.

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—(Another ed.). 1668. 795.c.22.

—(Another ed.) 1677. 796.h.2.

Taylor (John) John Taylor's wandering to see the wonders of the West; how he travelled neere 600 miles from London to the Mount, in Cornwall. 1649. 4to., pp. 21. E.573.(12).

—(Reprinted 1869.) No. 8 of Mr. Ashbee's Occasional Facsimile Reprints. 12205.h.14.(8).

Castelli (G.) Itinerario o racconto del viaggio fatto da G. Castelli per Inghilterra . . . 1655–70.

—Spoleto, 1905. 8vo., pp. 128. 10108.g.8.

Sorbière (Samuel de) Relation d'un voyage en Angleterre . . . Paris. 1664. 8vo. 979.b.4.

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—(4th ed.) Reprinted. 1749. 8vo.

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Mogg (Edward) Mogg's survey of the roads of South of England, Bath, Exeter, Bristol, etc. 1817. 4to, *maps*.

Dugdale (James) The New British Traveller, or modern panorama of England and Wales: exhibiting . . . an . . . account of the most important portion of the British Empire . 1819. 4 vols. 4to. 10348.f.9.

Lewis (William) Lewis's New Traveller's Guide; or, a pocket edition of the English Counties, containing all the direct and cross roads in England and Wales, etc. 1819. 12mo. 10349.b.25.

The panorama, or traveller's instructive guide through England and Wales, containing a variety of information relative to the fairs, bankers, mail-coaches, postage of letters, etc. 182–. 12mo, *maps*.

An account of the principal pleasure tours in England and Wales. Illustrated by maps and views. 1822. 12mo. pp. vii, 476. 797.c.1.

Locker (Edward Hawke) Report on the state and condition of the roads and mines on the estate of Greenwich Hospital in the counties of Cumberland, Durham, and Northumberland. 1823. fol. 796.l.30.(4).

A correct table of the distances of the principal towns of England and Wales from London; also showing the distances they are from each other. 1830 (?) Fol. Tab. 597.b.(34).

Cobbett (William) Rural rides in the counties, 1821–22, with economical and political observations. 1830. 12mo. 567.b.23.

—New ed., with notes, by J. P. Cobbett. 1853. 10349.bbb.21.

—New ed., with notes, by Pitt Cobbett. 1885. 2 vols. 10348.cc.18.

Lewis (Samuel) A topographical dictionary of England . . . and the Islands of Guernsey, Jersey, and Man . . . with maps . . . and a plan of London. 1831. 4to. 4 vols. 10351.k.9.

—(2nd ed.) 1833. 4to. 4 vols. 576.m.8–11.

—(3rd ed.) 1835. 4to. 5 vols. 10350.h.7.

—(4th ed.) 1840. 4to. 4 vols. 10350.h.5.

—(5th ed.) 1842. 4to. 4 vols. 10348.k.8.

—(7th ed.) 1849. 4to. 4 vols. 2061.d.

***Britton (John)** Lecture on the road-ways of England, pointing out the peculiarly advantageous situation of Bristol for the commerce of the west, with remarks on the benefits likely to arise from a railroad between that port and London. Bristol. 1833. 8vo. pp. 14. 8235.ee.11.(4).

Harvey (John) Alphabetical list of the cities and towns in England and Wales, with their county, distance and number of stages from Weymouth. Weymouth. 1839. 12mo. T.1991.(7).

Hussey (Robert) Account of the Roman road from Allchester to Dorchester, and other Roman remains in the neighbourhood; being the substance of a paper read to the Ashmolean Society, Nov. 9th, 1840. Oxford. 1841. 8vo. 797.f.3.

Miniature road-book of the Isle of Wight . . . with a map. 1842. 32mo. 570.a.30.

Lewis (Samuel) An atlas, comprising maps of the several counties [of England and Wales] divided into unions, and of the Islands of Guernsey, Jersey, and Man. 4to. 10348.k.6.

Maslen (T. J.) Suggestions for the improvement of towns and houses. 1843. 8vo., pp. xx, 249. 1401.e.18.

Deals with London, York, Leeds, Halifax, Manchester, Chester, Liverpool, Colchester, and Hull.

Tighe (Robert Richard) A letter to the Earl of Lincoln . . . on the present state and direction of the roads intersecting the parks and grounds of Windsor Castle, and on the thoroughfares of the town of Windsor, with suggestions for their improvement. Eton. 1845. 8vo., pp. 6. 10350.cc.17. London. fol., pp. 13. 798.k.17.

Knight (Charles) Knight's Excursion Companion. Excursions from London. 1851. 20 numbers. 8vo. 10350.d.31.

MacLauchlan (Henry) Memoir written during a survey of the Watling Street from the Tees to the Scotch Border . . . made by direction of His Grace the Duke of Northumberland. 1852. 8vo. 7702.d.27.(2).

Babington (C. C.) Ancient Cambridgeshire; or an attempt to trace Roman and other ancient roads that passed through Cambridgeshire . . . [Cambridge Antiquarian Society, Publications, 8vo series, No. 3]. Cambridge. 1853. 8vo. Ac.5624.

Bradshaw (George) Bradshaw's handbook to the manufacturing districts of Great Britain . . . in the counties of Lancashire, Cheshire, Staffordshire, and Warwickshire. 1854. 8vo. 10351.f.2

MacLauchlan (Henry) The Roman Wall, and illustrations of the principal vestiges of Roman occupation in the North of England. Consisting of plans of the military works, the stations, camps, ancient ways, and other remains of the earlier periods, in the Northern Counties. From original surveys made by direction of His Grace the Duke of Northumberland. 1857. Fol. 1700.c.

—Memoir written during a survey of the Roman Wall through the counties of Northumberland and Cumberland . . . made by direction of His Grace the Duke of Northumberland. 1858. 8vo. 7702.d.27.(1).

Adams (William Henry Davenport) Black's guide to the history, antiquities, and topography of the county of Surrey. 1861. 8vo. *maps, illus.* 10358.b.

A guide to the English Lake District, intended principally for the use of pedestrians. 1863. 8vo, *maps.*

—(2nd ed.) 1867.

History and construction of the Clifton suspension bridge: illustrated by a view of the bridge, and sections of the various parts. Bristol. 1864. Fol. 1801.a.

Taylor (Arthur) Papers in relation to the antient topography of the eastern counties of Britain, and on the right means of interpreting the Roman Itinerary. 1869. 4to. 10349.h.15.

***Spencer (Herbert)** Descriptive Sociology, III. 1—C, No. 1 (England). Compiled by J. Collier. 1873. Fol., pp. 70 and 3.

Rimmer (Alfred) Ancient streets and homesteads of England; with introduction by Dean J. S. Howson. 1877. 8vo. 150 *illus.* 2366.d.

—(2nd ed.) 1879.

Murray (John) Handbook for England and Wales, alphabetically arranged. 1878. 8vo.

Young (G. E.) The Liverpool cyclists' guide, 1883. Liverpool. 1883. 16mo, pp. 58. 7908.a.47.

Bridge over the river Ouse at Bedford. *Engineer*, Dec. 5, 1884.

Hall (M.) Recent street improvements in South Shields. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. 10, pp. 80–81. 1884.

Hissey (J. J.) An old-fashioned journey through England and Wales. 1884. 8vo, pp. xiv, 375. 10349.ff.21.

Bridge over the Kennet at Reading. *Engineer*, May 29; *Scientific American Supplement*, July 25, 1885.

Hissey (J. J.) A drive through England, or a thousand miles of road travel . . . 1885. 8vo, pp. xiv, 391; 24 *illus.* 10349.ff.25.

Howard (C.) Handy route book of England and Wales. 1885. 8vo. 10351.aa.

Lennox (J.) Road guide to the Southern Counties. Dumfries. 1885. 8vo, pp. 119. 10369.a.41.

Champlin (J. D., jun.) Chronicle of the coach, Charing Cross to Ilfracombe. New York. 1886. 8vo, pp. 298, *illus.* 10352.cc.22.

Hissey (J. J.) On the box seat from London to Land's End. 1886. 8vo, pp. xviii, 404, 16 *illus.* 10348.e.18.

Hissey (J. J.) A holiday on the road . . in Kent, Sussex, and Surrey. 1887. 8vo, pp. xviii, 408, 44 *illus.* 10350.ee.22.

Bridge over the Ouse at Bedford. *Scientific American Supplement*, Sept. 8, 1888. *Illus.*

Skipton and Ilkley bridges. *Engineer*, June 15, 1888.

McKie (H. U.) Lanes, courts, and back streets in old cities and towns, exemplified by those in Carlisle. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. 14, pp. 300–311. 1888.

Tristram (W. Outram) Coaching days and coaching ways. Illustrated by Hugh Thomson and Herbert Railton. 1888. 4to, pp. 367. 10348.k.15. [Appeared in parts in *English Illustrated Magazine* for 1888.]

—(2nd ed.) 1893.

Greene (Richard) Northampton as a cycling centre. Northampton. 1889. 8vo, pp. 20. 010358.f.8.(11)

Hissey (J. J.) A tour in a phaeton through the Eastern Counties. 1889. 8vo, pp. xiv, 403, 16 *illus.*, *map*. 10350.de.18.

***Jusserand (J. J.)** (Translated by Lucy Toulmin Smith). English wayfaring life in the Middle Ages. Part I: English roads, pp. 35–174. 1889. 8vo, pp. 451. 2366.e.

Smith (Urban) The country roads of England. 1890.

Rowell (H.) Cycling mileage guide. Yorkshire, Durham, and Northumberland. 1891. 16mo, pp. 48. 7906.a.69.

Sydney (William Connor) England and the English in the 18th century. Vol. II, Ch. XI. Roads and travelling. 1891. 8vo, 2 vols. 9525.ee.11.

Barrett (Charles Raymond Booth) Essex: highways, byways, and waterways. Illustrated by the author. 1892–93. 4to, 2 vols. 10352.i.42.

Harper (C. G.) The Brighton Road; speed, sport, and history; old times and new on a classic highway. 1892. 8vo, pp. xv, 272, *illus.* 010358.k.14.

Neat (Charles) The Victoria Bridge, Stockton-on-Tees. Institution of Civil Engineers, Proceedings, Vol. 109, pp. 304–311. Abstract in *Engineering News*, Sept. 8, 1892.

Oxford University Bicycle Club. The roads round Oxford. Oxford. 1892. 8vo, pp. 47. 10351.aa.57.

Blakes' Bridge, Reading. *Engineering*, Aug. 18, 1893.

Cartwright (Julia) (Mrs. Hy. Ady). The Pilgrims' Way, from Winchester to Canterbury. 1893. 8vo, pp. viii, 157, *illus.* 10349.h.32.

Harper (Charles G.) From Paddington to Penzance: the record of a summer tramp from London to the Land's End. 1893. 8vo, pp. xxiv, 272. 010358.f.43.

The old waggon road. *Chambers's Journal*, August, 1894.

Barrett (Charles Raymond Booth) Somersetshire: highways, byways, and waterways. Illustrated by the author. 1894. 4to, pp. xv, 366. K.T.C.18.a.1.

Blew (W. C. A.) Brighton and its coaches: a history of the London and Brighton road, with some account of the provincial coaches that have run from Brighton. 1894. 8vo, pp. 354. 20 *illustrations*, from drawings by J. and G. Temple, hand-coloured. 10349.h.34.

Hissey (J. J.) Through ten English counties. 1894. 8vo, pp. xiv, 406, *illus.*, *map*. 010350.i.2.

Hounsell (B.) Coach drives from London. 1894. 8vo, pp. 131. 10350.bb.45.

—English coach drives. 1894. 8vo, pp. 98. 10350.bb.46.

Howard (C.) Roads of England and Wales. 1894. 8vo, pp. 423. 10348.bbbb.8.

Rideing (W. H.) Coaching trips out of London. *Cosmopolitan*, August, 1894.

Barrett (Charles Raymond Booth) Surrey: highways, byways, and waterways. Illustrated by the author. 1895. 4to, pp. xv, 251. 10352.dd.13.

Harper (C. G.) The Dover Road; annals of an ancient turnpike. 1895. 8vo, pp. xviii, 363. 010350.i.9.

Harper (C. G.) The Portsmouth Road and its tributaries to-day and in ancient days of old. 1895. 8vo, pp. xvi, 372, 77 *illus.* 010358.h.24.

The Snodland Bridge over the River Medway. *Engineer*, Oct. 9, 1896.

Bradley (T.) Jackson's cyclists' guide to Yorkshire. Leeds. 1896. 8vo, pp. 568. 10360.bbb.70.

Hissey (James John) On southern English roads. 1896. 8vo, pp. xiv, 423, 16 *illus.*, *map*. 10349.dd.7.

King (Maud Egerton) Round about a Brighton coach office. Illustrated by Lucy K. Welsh. 1896. 8vo, pp. xii, 209. 12201.eee.2–3.

Perry (H.) Road and lane. A handbook for Manchester cyclists and tourists. Manchester. 1896. 8vo, pp. 103. 10351.aa.63.

The Redheugh Bridge. *Engineer*, July 9, 1897.

Victoria Bridge over the River Dee. *Engineering*, June 11, 1897, *illus.*

"Cycling." Pocket road book, giving cycling routes radiating from London. 1897. 16mo. 10349.a.

"Cycling." Pocket road book. 1897. 8vo, pp. 93. 10348.aa.13.

Iles (John Henry) The cyclist's companion and road guide for Bristol. Bristol. 1897. 12mo, pp. 96. 10358.a.56.

Inglis (H. R. G.) Contour road book of England. 1897. 8vo. 10348.aaa.54.

—(Also a 3-volume ed.)

***Law (Alice)** Brief survey of English towns and roads in the 13th century; some royal pioneers. *Economic Review*, VII, pp. 289–322. 1897.

Murray (John) Cyclist's road book from London to the New Forest. 1897. 12mo, pp. 115. 10348.aa.13.

***Roberts (L. M.)** English roads and bridges in the 13th century. *Economic Review*, VII, pp. 535–537. 1897.

Important improvement at Sheffield; the erection of Ball Bridge. *Surveyor*, Dec. 16, 1898.

Municipal progress in Leicester: opening of Newarke Bridge. *Surveyor*, Nov. 4, 1898.

Bacon (G. W.) "Up-to-date" cycling pocket road book of England and Wales. 1898. 16mo, pp. 217. 010350.de.2.

Hissey (J. J.) Over fen and wold. 1898. 8vo, pp. xvi, 447, *illus.*, *map*. 010358.f.57.

Webster (John J.) and **Wood (John T.)** Proposed high-level roadway bridge across the Mersey at Liverpool. Liverpool. 1898. Obl. fol.

Wright (J. W.) Cycle route book of roads round Nottingham. Nottingham. 1898. 8vo, pp. 127. 10351.aaa.63.

The [Barnstaple] Bridge as a religious edifice. *Engineering Record*, Sept. 16, 1899.

Barber (Thomas Walter) The Victoria Bridge over the Dee at Queensferry. *Iron and Steel Trades Journal*, Dec. 30, 1899.

Bluett (John) Bath to London; an old posting road. *Badminton Magazine*, April, 1899.

Clarke (W. G.) The Icknield Way in Norfolk and Suffolk. *Knowledge*, February, 1899.

Harper (Charles George) The Bath road: history, fashion, and frivolity on an old highway. 1899. 8vo, pp. xvi, 273. 010358.ee.7.

—The Exeter road: the story of the West of England highway. 1899. 8vo, pp. 318. 10347.f.45.

Hissey (J. J.) Across England in a dogcart, from London to St. David's and back. 1899. 8vo, pp. xiv, 413. 20 *illus.*, *map*. 010358.f.26.

Inglis (Harry R. G.) The "Royal" road book of England; guide to the main routes throughout the country. Edinburgh. 1899. 8vo, pp. xvi, 128. 10369.aa.28.

—(2nd ed.) 1901. pp. 144. 10349.a.51.

Klickmann (Wilfrid) Minehead to Land's End; two hundred miles by coach. *Windsor Magazine*, July, 1899.

Bridges over the River Aire. *Engineer*, March 9, 1900, *illus.*

North of England cyclist's guide. Bradford. 1900. 8vo. 10352.f.

The Trent Embankment: the progress of the scheme. *Surveyor*, March 2, 1900.

Andrews (W.) Historic byways and highways of old England. 1900. 8vo, pp. 269. 7709.bb.92.

Saner (John A.) Pontoon swing bridges over the Weaver at Northwich. Institution of Civil Engineers, Proceedings; abstracts in *Engineering News*, Sept. 20, and *Engineering*, Dec. 14, 1900, *illus.*

An English floating swing bridge (at Northwich). *Engineering Record*, March 23, 1901.

Important Nottingham improvement (Trent Embankment). *Surveyor*, Aug. 2, 1901.

The Newarke Bridge, Leicester. *Surveyor*, July 5, 1901, *illus.*

The Redheugh Bridge, Newcastle-on-Tyne. *Engineering*, May 10, *illus.*; Oct. 4, 18, Nov. 8, 1901, *illus.*

Street improvements at Hull. *Surveyor*. Sept. 27, 1901.

Bradley (A. G.) Highways and byways in the Lake District. 1901. 8vo, pp. 332. 10368.dd.9.

Freeman (H.) Littlebury's cyclist's guide and route-book for the Midland district. Worcester. 1901. 16mo, pp. 283. 10360.aa.61.

Hale (W.) Southampton to London; an old coaching road. *Outing*, June 1901.

Harper (G. C.) The Great North Road; the old mail road to Scotland. 1901. 8vo, 2 vols. 10349.dd.10.

—The Norwich Road; an East Anglian highway. 1901. 010360.ee.34.

Jeffreys (W. Rees) A new "royal" road to Windsor. *Surveyor*, Nov. 15, 1901. *map.*

*Birmingham improvements: the completion of Corporation Street. *Municipal Journal*, May 2, 1902, *map*, *illus.*

*Birmingham's unfinished improvement (Corporation Street). *Municipal Journal*, Dec. 19, 1902.

Cumberland county bridges (Smaithwaite and Smithy). *Surveyor*, Sept. 19, 1902.

New bridge at Guildford. *Surveyor*, March 14, 1902.

The new Kew Bridge. *Engineer*, Sept. 26, 1902, *illus.*

The new Redheugh Bridge at Newcastle-on-Tyne. *Scientific American*, Feb. 22, 1902.

Sonning bridges (correspondence). *Surveyor*, Oct. 24, 1902.

Harper (C. G.) The Cambridge, Ely, and King's Lynn Road, the great highway through the fens. 1902. 8vo, pp. 336. 010360.f.15.

Jeffreys (W. Rees) The proposed new road from London to Windsor. *Surveyor*, Feb. 14, 1902.

Tompkins (H. W.) Highways and byways in Hertfordshire. Illustrated by Frederick L. Griggs. 1902. 8vo, pp. 362.

Bridge building in Middlesex: new structure at Shepperton (Littleton Bridge). *Surveyor*, Oct. 16, 1903, *illus.*

The King Edward VII Bridge at Kew. *Engineering*, May 15, *illus.*; **Municipal Journal*, May 22, *map*, *illus.*; *Surveyor*, May 22, 1903, *illus.*

Bacon (G. W.) "Up-to-date" cycling pocket road book of England and Wales. 1903. 12mo, pp. 217. 010350.de.4.

Norway (Arthur H.) Highways and byways in Yorkshire. Illustrated by Joseph Pennell and Hugh Thomson, 1903.

Proposed new bridge at Aylesford. *Surveyor*, July 8, 1904, *map and section.*

Tests of a ferro-concrete bowstring bridge (at Purfleet). *Engineering*, October 28, 1904.

Abbott. Pocket gazetteer or English itinerary. 1904. 8vo. 010347.g.16.

Belloc (J. Hilaire P.) The Old Road. [The Roman Road from Winchester to Dover.] Illustrated by William Hyde. 1904. 4to, pp. 171. 10360.h.17.

—(New ed.) 1910. pp. 296. 010360.g.21.

Dutt (W. A.) Highways and byways in East Anglia. Illustrated by Joseph Pennell. 1904.

Harper (C. G.) The Newmarket, Bury, Thetford, and Cromer Road: sport and history on an East Anglian turnpike. 1904. 8vo, pp. 358. 010358.g.40.

Waight (E. K.) The reconstruction of the Rye swing-bridge. *Engineer*, July 15, 1904, *illus.*

Webster (J. J.) Transporter bridge over the Mersey at Widnes. Association of Municipal and County Engineers and Surveyors, *Proceedings*, Vol. 30, pp. 58–63. 1904.

The Exe Bridge. *Engineering*, March 24, 1905.

New bridge at Sheffield. *Surveyor*, July 21, 1905.

A Tunbridge Wells improvement. *Surveyor*, Aug. 11, 1905; *sketch-map.*

The cyclist's companion for Bristol and district. Bristol. 1905. 8vo, P.P. 2489.rc.

Firth (J. B.) Highways and byways in Derbyshire. Illustrated by Nelly Erichsen. 1905. 8vo, pp. xvii, 500.

Harper (C. G.) The Oxford, Gloucester, and Milford Haven Road: the picturesque highway to South Wales. 1905. 8vo, 2 vols. 10349.dd.14.

Tombs (R. C.) The King's Post; being a volume of historical facts relating to the posts, mail-coaches, coach road, and railway mail services of and connected with the ancient city of Bristol from 1580 to the present time. 1905. 8vo, pp. 268.

Bridge building in Cumberland (at Sickergill). *Surveyor*, Jan. 12, 1906, *illus.*

*Nottingham's latest enterprise (a foot-bridge over the Trent). *Municipal Journal*, Sept. 21, 1906, *illus.*

A Worcestershire ferro-concrete bridge (at Stanford). *Surveyor*, Oct. 26, 1906.

Bacon (G. W.) Bacon's "Up-to-date" cycling road book of England and Wales. 1906. 12mo, pp. 217. 010350.de.8.

Harper (Charles G.) The Hastings Road and the "Happy Springs of Tunbridge." 1906. 8vo, pp. xv. 287, *illus.*

Simplex Publishing Co. Simplex Cyclist's Route Book. Details and maps of 19 routes in South Lancashire, Cheshire, and Derbyshire. Manchester. 1906. 16mo, pp. 74. 10347.a.35 (3).

Treves (Sir Frederick) Highways and byways in Dorset. Illustrated by Joseph Pennell. 1906. 8vo, pp. 396.

Vincent (James Edmund) Highways and byways in Berkshire. Illustrated by Frederick L. Griggs. 1906. 8vo, pp. 443.

Bearings for King Edward VII Bridge, Newcastle-on-Tyne. *Engineer*, Jan. 25, 1907, *illus.*

Bridge improvement at Tunbridge Wells. *Surveyor*, May 17, 1907. *map.*

The bridge over the River Wear at Sunderland. *Engineering*, July 12, 1907, *illus.*

Ferro-concrete highway bridge at Colne. *Surveyor*, Feb. 15, 1907, *illus.*

Smallheath Bridge, Birmingham. *Engineering*, May 10, 1907, *illus.*

Fothergill (G.) Philips' "Finger Post" guides to road junctions for motorists and cyclists. Part I: 12 main routes from London. 1907. 12mo, pp. 278. 010347.aaa.

Jerrold (Walter) Highways and byways in Kent. Illustrated by Hugh Thomson. 1907. 8vo, pp. 447.

Lucas (E. V.) Highways and byways in Sussex. Illustrated by Frederick L. Griggs. 1907. 8vo, pp. xx, 424.

Norway (Arthur H.) Highways and byways in Devon and Cornwall. Illustrated by Joseph Pennell and Hugh Thomson. 1907.

Saville (William Henry Bourchier) Swing-bridge over the River Avon at Bristol. Institution of Civil Engineers, Proceedings, *illus.* 1907.

Webster (John James) The Widnes and Runcorn transporter bridge. Institution of Civil Engineers, Proceedings, *illus.* 1907.

Bridge over the River Wear at Sunderland. *Engineering*, Oct. 23, 1908, *illus.*

The new marine drive, Scarborough. *Engineer*, Aug. 7, 1908, *illus.*

A new transporter bridge at Warrington. *Engineer*, March 27, 1908, *illus.*

On an old road. *Living Age*, Jan. 4, 1908.

*Scarborough's enterprise (marine drive between North and South Bays). *Municipal Journal*, Aug. 7, 1908.

Walney Bridge: a great engineering achievement. *Municipal Journal*, Aug. 7, 1908.

Evans (Herbert A.) Highways and byways in Oxford and the Cotswolds. Illustrated by Frederick L. Griggs. 1908.

Hale (W.) Coaching on the Great North Road. *Outing*, June, 1908.

Parker (Eric) Highways and byways in Surrey. Illustrated by Hugh Thomson. 1908. 8vo, pp. 452.

Read (D. H. Moutray) Highways and byways in Hampshire. Illustrated by Arthur B. Connor. 1908.

An English double-deck swing bridge for railway and roadway traffic [over the Avon at Bristol]. *Engineering News*, Aug. 19, 1909, *illus.*

The new bridge over the Wear [at Sunderland]. *Engineer*, June 4, 1909, *illus.*

Swing-bridge across the Weaver Navigation. *Engineer*, Oct. 8, 1909, *illus.*

*The Tees transporter [at Middlesbrough]. *Municipal Journal*, June 4, 1909, *illus.*

Barrington-Ward (Victor Michael) Reconstruction of the road bridge over the River Tame at Lea Marston. Institution of Civil Engineers, Students' Paper 647. 1909.

Davis (Frank William) and **Kirkpatrick (Cyril Reginald Sutton)** The King Edward VII Bridge, Newcastle-on-Tyne. Institution of Civil Engineers, Proceedings, 1909, *illus.*

Home (Gordon) The motor routes of England. Southern section. 1909. 8vo, pp. 334, 24 *illus.*, 42 *maps.*

Jerrold (Walter) Highways and byways in Middlesex. Illustrated by Hugh Thomson. 1909. 8vo, pp. 400.

Conybeare (Edward) Highways and byways in Cambridge and Ely. Illustrated by Frederick L. Griggs. 1910. 8vo, pp. 431.

Harper (C. G.) The *Autocar* road book. Vol. I: England south of the Thames. Vol. II: Wales and Midlands. 1910–12. 8vo, 2 vols.

Hissey (J. J.) The charm of the road. England and Wales. 1910. pp. 426. 010360.g.24.

Shorter (Clement) Highways and byways in Buckinghamshire. Illustrated by Frederick L. Griggs. 1910. 8vo, pp. 344.
Rochester Bridges. *Engineering*, March 10, 1911, *illus.*
***Montagu (George)** The highways of England; their growth and relation to civics. *Sociological Review*, Vol. IV., Jan. 1911, pp. 3–25.
Morgan (E. F.) Notes on permanent way and highways at Croydon. *Surveyor*, June 2, 1911
Pratt. Road atlas of England and Wales. 1911. Anglo-American Oil Co. 8vo.
Sills (Spencer) A brief historic sketch of Rochester Bridge. *Surveyor*, Sept. 22, 1911, *illus.*
Trewby (Arthur) Walney Bridge, Barrow-in-Furness. Institution of Civil Engineers, Paper 3842. 1911.
The history of the Ouse Bridge. *Builder*, May 17, 1912, *illus.*
The main roads of England. *Autocar*, Nov. 30, 1912, *illus.*
Road evolution in England. *Autocar*, Jan. 6 *et seq.*, 1912, *illus.*
***Pratt (Edwin A.)** History of inland transport and communication in England. 1912. 8vo, pp. xii, 532.
Chapters II–XII, on roads and road vehicles; XXIII, Decline of turnpikes; XXIV, End of the coaching era. Bibliography, pp. 514–521.
***Prothero (Rowland E.)** English farming, past and present. 1912. 8vo. pp. xiv, 504.
Chapter XIII. Highways.

2. Administration.

***England: Govt.** Confirmation of liberties. c. 15, making of bridges and banks. 1225. 9 Hen. III.
*—Statute of Winchester, c. 5. The breadth of highways leading from one market town to another. 1285. 13 Ed. I, stat. 2.
*—Act concerning Rochester Bridge. 1421. 9 Hen. V, stat. 1, c. 12.
*—Act for repair of certain roads and bridges about Abingdon. 1421. 9. Hen. V, stat. 2, c. 11.
*—Act for erecting two bridges over the waters of Burford and Culhamford in the county of Oxfordshire. 1429. 8 Hen. VI, c. 28.
*—Act concerning the bridge at Staines. 1509. 1 Hen. VIII, c. 9.
*—Act for altering of highways in the Weald of Kent. 1522. 14 and 15 Hen. VIII, c. 6.
*—Act for repairing and amending bridges and highways. 1530. 22 Hen. VIII, c. 5.
*—Act for amending of highways in Sussex. 1534. 26 Hen. VIII, c. 7.
*—Act for the amending of the highway near Chester, called Huntinton -Lane. 1545. 37 Hen. VIII, c. 3.
*—Act for the mending of highways. 1555. 2 and 3 Phil. and Mar., c. 8.
*—Act for the reviving of a statute made in 2 and 3 Phil. and Mar. for the amending of highways. 1562. 5 Eliz., c. 13.
*—Act for paving of the town of Ipswich. 1570. 13 Eliz., c. 24.
*—Additions unto the former Acts, for the amending and repairing of highways. 1575. 18 Eliz., c. 10.
*—Act for the perpetual maintenance of Rochester bridge. 1575. 18 Eliz., c. 17.
*—Act for the repairing of Chepstowe bridge. 1575. 18 Eliz., c. 18.
*—Act for the paving of the city of Chichester. 1575. 18 Eliz., c. 19.
*—Act for the repairing and amending of the bridges and highways near unto the city of Oxford. 1575. 18 Eliz., c. 20.

Lambard (William) The duties of Constables, Borsholders, Tithingmen, and such other lowe Ministers of the Peace. Whereunto be also adioyned the severall offices of Churchwardens . . . surveyours of the highwaies . . 1583. 8vo. 6281.aa.24.(2).
—(Another ed.) 1584. 1381.b.26.(2).
—(Another ed.) enlarged, 1587. 6282.a.1.
—(Another ed.) 1594. 230.k.5.(2).
—(Another ed.) 1599. pp. 80. 1381.c.4.(2).
—(Another ed.) 1602. 516.a.8.(2).
—(Another ed.) 1606. 6282.aa.9.(2).
—(Another ed.) 1610. 6281.aa.25.(2).

***England: Govt.** Act for the preservation of timber in the wilds of the counties of Sussex, Surrey and Kent, and for the amendment of highways decayed by carriage to and from iron mills there. 1584. 27 Eliz., c. 19.
*—Act for explanation of the statute for the maintenance of Rochester bridge. 1584. 27 Eliz., c. 25.
*—Act for explaining of the statute for the amending of the highways between Middleton and the King's Ferry, leading into the Isle of Sheppey, in the county of Kent. 1584. 27 Eliz., c. 26.
*—Act for the amendment of highways in the counties of Sussex, Surrey and Kent. 1597. 39 Eliz., c. 19.
*—Act for the erecting and building of a bridge over the river of Wye, at Wilton-upon-Wye, near the town of Rosse, in the county of Hereford. 1597. 39 Eliz., c. 24.
*—Act for the re-edifying, repairing, and maintaining of two bridges over the river of Eden, near the city of Carlisle in Cumberland. 1601. 43 Eliz., c. 16.
*—Act for the repairing and maintaining of the highway leading from Kingston to Nonsuch. 1605. 3 Jac. I, c. 19.
*—Act for the making up and keeping in reparation of Chepstow bridge. 1605. 3 Jac. I, c. 23.
*—Act for making a bridge over the river of Severn, in the county of Worcester. 1605. 3 Jac. I, c. 24.

Norden (G.) The Surveyors Dialogue . . . 1607. 8vo. 530.e.5.
—(2nd ed.) 1610. 4to. 967.k.21.
—(3rd ed.) 1618. 8vo. 967.k.18.(1).
—(4th ed.) 1738. 8vo. 518.i.10.(2). [*Books* 4 *and* 5 *wanting*].

Layer (John) The office and duty of constables . . . with the office of surveyors of the highways. 1641. 12mo.

Commonwealth Govt. Ordinance for better amending and keeping in repair the common highwaies within this nation. 1654. E. 1063. (5).
Provisions :—
1. Every parish must elect two surveyors of the Highways yearly, from among the householders holding lands worth £20 a year, or worth £100.
2. If the appointment is not made, the most substantial householders shall be fined £20, of which they shall recover part from the other inhabitants; and, in default of surveyors, the overseers shall act.
3. The surveyors must present themselves to be sworn.
4. They shall within ten days survey all the roads and bridges, and see what work is needed.
5. They shall give public notice in church of a meeting of parishioners to make a rate for making and repairing and cleansing roads and pavements, the maximum amount of all such rates for the year to be 1s. in the £. The penalty for non-payment, by clause 8, is to be double the sum.

6. If the parishioners do not agree on the rate, the surveyors may make it, subject to the confirmation of a J.P., with appeal to the sessions.
7. Nuisances and encroachments shall be removed, and special assessments shall be levied on owners of offending lands.
9. The surveyors shall hire labour and teams.
12. Rates in aid of overburdened parishes shall be levied on other parishes by authority of the Justices of the Peace in open sessions.
13. Not more than 5 horses or 6 oxen and a horse shall be yoked to each cart.
15. The ordinance shall be applicable to all corporate towns as well as to parishes.

—Ordinance touching surveyors of the highwaies. April 12, 1654. E.1063. (61).

Defers latest date of election of surveyors for 1654 to May 1st.

—Ordinance of explanation of a former ordinance entitled „ An ordinance for better amending and keeping in repair the common highwaies within this nation." May 16, 1654. E. 1064. (5).

The rule limiting teams to 5 horses or 6 oxen and a horse is not to apply to carts conveying ordnance for the Army or Navy.

***England : Govt.** Act for inlarging and repairing of common highways. 1662. 13 and 14 [1 and 2] Caroli II, c. 6.

Meriton (George) A guide for constables, churchwardens, overseers, surveyors, treasurers, bayliffs, toll-takers . . . a treatise briefly showing the extent and latitude of the several offices. 1669. 12mo. 6146.e.14.

***England : Govt.** Additional act for the better repairing of highways and bridges. 1670. 22 [9] Caroli II, c. 12.

Broadsheet against new buildings. A proclamation respecting highways. 1671.

***England : Govt.** Act for repealing certain words in a clause in a former Act, intituled, "An Act for enlarging and repairing of common highways." 1677. 30 [17] Caroli II, c. 5.

M. (J.) The Traveller's Guide and the Country's Safety. Being a declaration of the laws of England against highwaymen or robbers upon the road; what is necessary and requisite to be done by such persons as are robbed in order to the recovering their damages; against whom they are to bring their action; and the manner how it ought to be brought. 1683.

***England : Govt.** Act for the better repairing and amending the highways, and for settling the rates of carriage of goods. 1690. 3 and 4 Gul. et Mar., c. 12.

Littleton (E.) Proposal for maintaining and repairing the highways. 1692. 4to. 517.k.16. (19).

Meriton (George) A guide to surveyors of the highways in their duty, . an abstract of statutes made for the repairs of highways . . in particular places . . . 1694. 8vo. 883.f.16.

Mather (William) Of repairing and mending the highways; in five sections; touching—1. Removing obstructions . . . 2. Drain- the highways and repairing them. 3, 4, 5. Providing material, labourers, carriages, etc. 1696. 8vo. 1028.i.33.(1).

***England : Govt.** Act for enlarging common highways. 1697. 8 and 9 Gul. III, c. 16.

*—Act to explain and alter the Act of 22 Hen. VIII, concerning repairing and amending of bridges in the highways; and for repealing an Act of 23 Eliz., for the re-edifying of Cardiffe bridge in the county of Glamorgan; and also for changing the day of election of the wardens and assistants of Rochester Bridge. 1702. 1 Annæ, c. 18.

*Reasons humbly offer'd to the consideration of this Honourable House, in behalf of several carryers . . . and also persons concerned in feeding oxen, sheep, hoggs, etc., in relation to the Bill for erecting a Turn-Pike or Bar, near Whetstone in Middlesex. 1711(?). S. sh. fol. 8223.e.9.(19).

Reasons humbly offer'd to the House of Commons against a Bill . . . for the repairing the road from the town of Highgate to, and beyond, the town of Whetstone, in the county of Middlesex. 1711. S. sh. fol. 8223.e.9.(14).

[*Begins* "For mending the roads of England: it's proposed . . ." signed J. P.]. 1715. 8vo. T.1816.(13).

Nelson (William) Office and authority of a Justice of Peace, shewing also the duty of . surveyors of the Highways. 1718.

—(6th ed.) 1718. 8vo. 6282.c.1.

—(Another ed.) 1745.

Reasons for passing the Bill for repairing the high-ways from Brampton-bridge . . . to Welford-bridge . . . as likewise the great post-road between Morter-Pitt Hill . . . leading into Market-Harborough. 1721. Fol. 517.m.17.(16).

Reasons why the Bill for amending the high ways from Brampton-bridge to Welford-bridge . . . should not pass into a law as it now stands before your Lordships. S. sh. fol. 516.m.17.(17).

[**Watts (John)**] A list of the subscribers for mending the road from Reading to Caversham, with an account how the money has been laid out. 1724.

The complete parish officer; containing the authority and proceedings of . surveyors of the highways. 1726. 4th ed.

—(16th ed.) 1772. 12mo. 516.b.26.

Phillips (Robert.) A dissertation concerning the present state of the highroads of England, especially of those near London, wherein is proposed a new method of repairing and maintaining them. 1737. 8vo. 988.k.22.(1).

***Great Britain: Govt.** Act for the preservation of the publick roads in that part of Great Britain called England. 1741. 14 Geo. II, c. 42.

Collier (James) Remarks on the Wisbich Road Bill, addressed to the . . . Speaker of the House of Commons. 1750 (?). 8vo. 101.k.3.

Reasons against a bill now depending in Parliament, entitled "A Bill for the more effectual preservation of the Turnpike Roads in . . . England." 1751 (?). Fol. 357.d.7.(84).

***Great Britain: Govt.** Act for the more effectual preservation of the turnpike roads in . . . England; and for the disposition of penalties given by Acts of Parliament relating to the highways in England, and for enforcing the recovery thereof . 1751. 24 Geo. III, c. 43.

Reasons against the Bill for an intended turnpike between Keighley, in the county of York, and Kendall in the county of Westmorland. 1753. Fol. 213.i.2.(62).

Reasons published against the Bill for a turnpike between Keighley and Kirkby Kendal, answered. Fol. 213.i.2.(61).

Collier (James) Remarks on Road Bills in General, and on Wisbich Road Bill in Particular. 1756? 8vo. T.1093.(12).

Burn (Rev. Richard) History of the Poor Laws; with observations. 1764. 8vo. 516.d.4.

***Great Britain Govt.** Report from the Select Committee on the application of money, collected within eleven years last past, for repairing any particular highway. 1763. Journals, Vol. 29, pp. 646.

Refers to Turnpike Trusts of Hackney, Islington, Kensington, Marylebone, New Cross, and Surrey.

***Great Britain Govt.** Report from the Committee appointed to inquire into the management and application of money collected within the last 12 years by virtue of any Act of Parliament for repairing any particular highway. 1765. Reports, 1st series, Vol. II, pp. 465–467.

Deals with Bath Road, Islington, Kensington, Marylebone, New Cross, Park Lane or Tyburn Lane, Piccadilly, Stamford Hill, Surrey, and the appointment of trustees.

Objections of the petitioners against the passing of the Bromley Turnpike Bill, as it now stands. 1767. Fol. 214.i.1.(107).

Great Britain Govt. Collection of Acts of Parliament relating to roads in Surrey and Sussex, 1717–70. 1772. 8vo, pp. 278. 6146.aaa.22.(1).

*—Act to explain, amend, and reduce into one Act of Parliament the Statutes now in being for the amendment and preservation of the publick highways within that part of Great Britain called England; and for other purposes. 1773. 13 Geo. III, c.78.

***Great Britain Govt.** Act to explain, amend, and reduce into one Act of Parliament the general laws now in being for regulating the turnpike roads in that part of Great Britain called England; and for other purposes. 1773. 13 Geo. III, c.84.

Attempt to state the accounts of receipts and expenses relative to the Oxford Paving Act [12 Geo. III, c.19]; with remarks. Oxford. 1774. 8vo, pp. 23. T.1093.(20).

***Great Britain Govt.** Act for varying some of the provisions in an Act of 13 Geo. III, respecting the publick highways in England, which relate to the performance of statute duty. 1794. 34 Geo. III, c.74.

Hammersmith and Brentford. Report of a Committee of Trustees of the Hammersmith and Brentford Turnpikes, Old District, appointed at a General Board, 15th Feb. 1800. 1800. 4to. T.922.(9).

***U.K. Govt.** Bill to amend laws for building and repairing county bridges, and other works maintained at the expense of the inhabitants of counties. 1801 (114) i. 393.

*—Report on giving powers to justices for repairing and altering the situation of county bridges, and for bringing actions for damages done thereto. 1801 (78) iii. 209.

***U.K. Govt.** Bill to amend the laws for building and repairing county bridges, and other works maintained at the expense of the inhabitants of counties. 1802 (38) i. 75.

U.K. Govt. Bill to amend the laws for building and repairing county bridges, and other works maintained at the expense of the inhabitants of counties. 1803 (64, 91) i. 217, 317.

*— Act 43 Geo. III, c. 59.

—Report on giving powers to justices for repairing and altering the situation of county bridges, and for bringing actions for damages done thereto. 1803 (61) v. 302.

***U.K. Govt.** Act for extinguishing the right of way over a lane or road leading across the exercising ground in front of Chatham lines, and for vesting the soil thereof in His Majesty, his heirs and successors. 1808. 48 Geo. III, c. 101.

***U.K. Govt.** Bill to amend the laws respecting the turnpike roads and highways in England. 1809 (279) i. 713.

***U.K. Govt.** Bill to amend the laws respecting the turnpike roads and highways in England. 1810 (102, 201, 255[2], 347) i. 101, 233, 371, 587.

U.K. Govt. Bill to amend the laws respecting the turnpike roads and highways in England and Wales. 1811 (48, 93, 191) i. 217, 237, 257.

*—Minutes of evidence on the Bill for repealing the Shoreham Road Act. 1811 (196) ii. 413.

***U.K. Govt.** Bill for amending an Act of 12 Geo. II, intituled, "An Act for the more easy assessing, collecting and levying of County rates:" and for the remedying certain defects in the laws relating to the repairing of county bridges and other works maintained at the expense of the inhabitants of counties in England. 1812 (229) i. 999.

*— Act 52 Geo. III, c. 110.

*—Bill to facilitate and promote the performance of the duties of surveyors of highways and turnpike roads in England and Wales, and for the further improvement and preservation thereof. 1812 (160, 252, 294) i. 661, 675, 701.

***U.K. Govt.** Bill to facilitate and promote the performance of the duties of surveyors of highways and turnpike roads in England and Wales, and for the further improvement and preservation thereof. 1813 (126, 143, 181) i. 363, 391, 423.

***U.K. Govt.** Act to amend an Act of 13 Geo. IV, to explain, amend, and reduce into one Act the statutes now in force for the amendment and preservation of the public highways within England; and for other purposes. 1814. 54 Geo. III, c. 109.

*—Act to enable the several persons therein named to dispose of certain securities upon the tolls of the iron bridge at Bishopwearmouth . . . by way of lottery. 54 Geo. III, c. 117.
Reprinted with 32 Geo. III, c. 90, in 1830. 6425.c.9.

*—Bill to explain and extend an Act of 43 Geo. III, intituled "An Act for remedying defects in the laws relative to the building and repairing of county bridges, and other works maintained at the expense of the inhabitants of counties in England," and for extending the said Act to bridges and other works maintained at the expense of hundreds. 1814 (180) ii. 645.

*—Act 54 Geo. III, c. 90.

***U.K. Govt.** Act for procuring returns relative to the expense and maintenance of the poor in England, and also relative to the highways. 1815. 55 Geo. III, c. 47.

*—Bill to amend the laws for building and repairing county bridges. . . 1815 (309, 352, 380, 430) ii.

*—Act 55 Geo. III, c. 143.

***U.K. Govt.** Account of the expense and maintenance of highways and turnpike roads in each county in England and Wales. 1818 (431) xvi. 255.

*—Proceedings and minutes of evidence on the Manchester and Salter's-brook Road bill, relating to compliance with the standing orders. 1818 (77) iii. 89.

***U.K. Govt.** Bill to amend the general laws now in being for regulating turnpike roads in England. 1820 (292) i. 333.

*—Report from the Select Committee on the state of Rochester Bridge, and of the River Medway, as connected with the naval arsenal at Chatham; and effects of obstructions on the bed of rivers. 1820 (267) iii. 29.

***U.K. Govt.** Bill to amend the general laws now in being for regulating turnpike roads in England. 1821 (521, 632) ii. 849, 913.

***U.K. Govt.** Bill to amend the general laws now in being for regulating turnpike roads in England. 1822 (111, 358) i. 269, 355.

*— Act 3 Geo. IV, c. 126.

Thirsk and Yarm Road. Statement concerning the Thirsk and Yarm Road by the Committee of Trustees appointed to carry into effect the resolution of a general meeting of trustees, held at Stockton. Stockton-on-Tees. 1823. 8vo, pp. 15. 10347.ee.14. (3).

***U.K. Govt.** Bill to explain and amend the act of 3 Geo. IV, for the regulation of turnpike roads in England. 1823 (208, 259, 435) ii. 729, 761, 793.

*— Act 4 Geo. IV, c. 95.

***Cobbett (William, jun.)** The law of turnpikes. Commentaries on the general acts relative to the turnpike roads of England. . . 1824. 8vo., pp. iv, 196. 517.d.32.

***U.K. Govt.** Bill to explain and amend the act of 3 Geo. IV, for the regulation of turnpike roads in England. 1824 (336) iii. 163.

— Act 5 Geo. IV, c. 69.

—A collection of acts of Parliament now in force for regulating the turnpike roads in England. 1824.

*—Statements of income and expenditure of the [turnpike] trusts in England and Wales. 1824 (470) xx. 1.

Bath. Report of the Committee of Trustees, Bath turnpike roads. 1825. Fol. pp. 74.

Ipswich Turnpike. General statement of the income and expenditure between Aug. 30th, 1825, and Aug. 30th, 1826. 1826. 10351.i. 10. (45).

—(Do.) 1828–29. 10351.i.24 (59).

—(Do.) 1830–31. 10351.i.24 (60).

—(Do.) 1832–33. 10351.i.24 (55).

—(Do.) 1834. fol. 10351.i.24 (61).

***U.K. Govt.** Cash account of Richmond Bridge for 1825. 1826 (281) xxi. 175.

***U.K. Govt.** Bill to amend the acts for regulating turnpike roads in England. 1827 (121, 162, 262) i. 31, 41, 53.

*— Act 7 and 8 Geo. IV, c. 24.

*—Copy of Mr. Telford's report on the road from London to Liverpool. 1827 (362) vii. 71.

***U.K. Govt.** Act to amend the acts for regulating turnpike roads. 1828. 9 Geo. IV, c. 77.

—Collection of the acts of Parliament now in force for regulating the turnpike roads in England. With a copious index. 1828. 8vo. 5805.a.

*—Bill to relieve the inhabitants of counties in England and Wales from the charge of repairing roads over and at the ends of public bridges, and for better enabling them to repair and rebuild such bridges. 1828 (276) i. 627.

U.K. Govt. Bill to relieve the inhabitants of counties in England and Wales from the charge of repairing roads over and at the ends of public bridges, and for better enabling them to repair and rebuild such bridges. 1829 (76) i. 399.

*—Receipts and disbursements of tolls collected at Staines Bridge under 9 Geo. IV, from July 7th, 1828, to March 25th, 1829. 1829 (266) xxi. 265.

*—Mr. Telford's reports, estimates, and plans for improving the road from London to Liverpool. 1829 (123) v. 83.

*—Return showing aggregate amount of tolls collected on new roads in Surrey under Act 3 Geo. IV. 1829 (99) xxi. 263.

U.K. Govt. Copy of the Wearmouth Bridge Acts. . . 32 Geo. III, c. 90, for building the bridge, and 54 Geo. III, c. 117, to authorise the disposal of certain securities on the tolls by way of lottery, and also the names of the new Commissioners. 1830. Bishopwearmouth, 1830. 8vo, pp. 88. 6425.c.9.

***U.K. Govt.** Bill to alter and amend an Act 43 Geo. III, relative to county bridges, so far as the same relates to the West Riding of the County of York. 1830 (457) ii. 251.

*—Bill to make provision for the lighting, watching, cleansing and paving of parishes in England and Wales. 1830 (98, 347) iii. 71, 97.

*—Memorials to the Treasury from the towns of Warrington, Ashton, Newton and Wigan, and the trustees of the Warrington and Wigan road, relative to the northern road Commission. 1830 (553) xxvii. 291.

*—Report from the Select Committee on the state of the northern roads. 1830 (172) x. 189.

*—Report of Mr. Telford on the road from Ketley ironworks to Chirk. 1830 (26) xxvii. 277.

***U.K. Govt.** Bill to amend the acts for regulating turnpike roads in England, so far as they relate to certain exemptions from toll. 1831 (94, 173) iii. 487, 491.

*— Act 1 and 2 Gul. IV, c. 25.

*—Bill to consolidate and amend the laws relating to highways in England. 1830–31 (150) i. 537; 1831 (10, 116) ii. 227, 273.

***U.K. Govt.** Bill to explain certain provisions in local acts relating to double tolls on turnpike roads. 1832 (241) iv. 615.

*— Act 2 and 3 Gul. IV, c. 124.

*—Bill to consolidate and amend the laws relating to highways in England. 1832 (308, 526, 610) ii. 133, 203, 273.

*—Return relative to Annesley Bridge Turnpike Trust. 1832 (645, Appx.) xvii. 700.

Aldborough Turnpike. General statement of the income and expenditure between September 15th, 1832, and September 16th, 1833. 1833. 10351.i.24.(54).

—(Do.) January 1st, 1835 to December 31st, 1843. (Annual statements.) Ipswich. Fol. 1891.e.2.(25).

***U.K. Govt.** Accounts of turnpike trusts in England and Wales indebted to the Exchequer Bill Loan Commissioners, 1829 and 1830. 1833 (In 703-Appx.) xv. 622.

*—Bill requiring annual statements of trustees [of turnpike roads in England] to be transmitted to the Secretary of State. 1833 (682) iv. 593.

*—Bill to amend the laws concerning highways in England. 1833 (31, 395) ii. 397, 467.

***U.K. Govt.** Abstract of returns laid before the Select Committee appointed to inquire into the county rates and highway rates in England and Wales, relating to the receipt and expenditure of county rates. 1834 (542, Appx.) xiv. 193.

*—Bill to amend the laws concerning highways in England. 1834 (62, 470) ii. 445, 507.

*—Total amount of expenditure incurred in building and repairing bridges and roads leading to them (etc., etc.), and bridge masters and county surveyors in England and Wales. 1834 (542, Appx) xiv. 194–206.

Bateman (Joseph) The General Highway Act, 1835, with notes and an index. 1835. 12mo. 517.b.(1).

—(2nd ed.) 1863. By W. N. Welsby. 6425.aa.1.

Bramwell (George) New code of General Turnpike Acts. 1835. 8vo.

Delane (William Frederick Augustus) The present general laws for regulating highways in England, . . . arranged alphabetically as one act. 1835. 12mo. 517.b.33.(2).

***U.K. Govt.** Bill to amend the laws concerning highways in England. 1835 (69, 564) iii. 95, 159.

*—Act 5 and 6 Gul. IV, c. 50.

***U.K. Govt.** Bill to authorise the consolidation of trusts of turnpike roads in England. 1835 (435) iv. 539.

*—Bill to exempt carriages carrying manure from toll. 1835 (203, 260) iii. 409, 411.

*—Act 5 and 6 Gul. IV. c. 18.

The office of Surveyor of the Highways, containing all the material provisions of the new Highway Act of 5 and 6 Will. IV, c. 50 . . . By a magistrate. 1836. 12mo. T.2062.(6).

—Cyfraith newydd yffordd fawr yn cynnwys dyledswydd yr arolygydd . . . gyda nodau a sylwadan, attodiad o ffurfiau, a chyfarwyddiadau tuag at ffurfio a diwygio ffyrdd. Caerfyddin. 1836. 12mo. pp. 27. T.2302.(5).

A weekly account of expenditure on the highways. Shrewsbury. 1836 (?) 4to. 712.k.27.

Chambers (Daniel) The General Highway Act, comprising the statute 5 and 6 Will. IV, c. 50 . . . with explanatory notes, forms, references, and an index. 1836. 8vo. 517.b.35.

Fry (Alfred Augustus) A familiar abridgement of the General Highways Act, 5 and 6 Will. IV, c. 50, with a copious index. 1836. 12mo. T.1999.(11).

Nash (F. W.) Practical guide to surveyors of highways, comprising their powers . . . under the new Highway Act, 5 and 6 Will. IV, c. 50.

—(2nd ed.) 1836. 12mo. 517.b.36.

—(5th ed.) 1853. 6305.a.27.

—(7th ed.) 1863. 6305.a.28.

—(8th ed.) By G. G. Greenwood; with an exemplification of Highway Parish Accounts, by H. Lloyd Roberts. 1880. 8vo, pp. viii, 201. 6306.aa.12.

***U.K. Govt.** Abstract of the expenses of the Middlesex and Essex turnpike roads, 1827–1834. 1836 (In 547-Appx.) xix. 503.

—Abstract of the general statements of the income and expenditure of the several turnpike trusts in England and Wales, pursuant to Act 3 and 4 Will. IV, c. 80.

*1834 – 1836 (2) xlvii. 297.
*1835 – 1837 (328) li. 291.
*1836 – 1838 (529) xlvi. 97.
*1837 – 1839 (447) xliv. 299.
*1838 – 1840 (289) xlv. 391.
*1839 – 1841 (421) xxvii. 83.
*1840 – 1842 (528) xxxvii. 247.
*1841 – 1843 (580) xlviii. 313.
*1842 – 1844 (595) xlii. 343.
*1843 – 1845 (648) xli. 447.
*1844 – 1846 (601) xl. 409.
*1846 – 1848 (661) li. 359.
*1847 – 1850 (1150) xlix. 379.
*1848 – 1851 (1293) xlviii. 325.
*1849 – 1852 (1440) xliv. 305.
*1850 – 1853 (1573) xcvii. 335.
*1851 – 1854 (1805) lxiv. 1.
*1852 – 1854 (1851) lxiv. 95.
*1853 – 1855 (2000) xlix. 1.
*1854 – 1856 (2146) lviii. 1.
*1855 – 1858 (2400) lii. 587.
*1856 – 1859 (2509, Sess. 1) xxiii. 345.
*1857 – 1860 (2731) lxi. 291.
*1858 – 1861 (2868) lvii. 281.
*1859 – 1862 (3044) liii. 285.
*1860 – 1863 (3210) l. 551.
*1861 – 1864 (3413) l. 493.
*1862 – 1865 (3561) xlvii. 561.
1863 – 1866 (3743) lx. 493.
1864 – 1866 (3743—I) lx. 587.
1865 – 1867 (3935) lxii. 381.
1866 – 1868 (4002) lxii. 477.
1867 – 1869 (4219) liv. 217.
1868 – 1870 (c. 53) lix. 393.
1869 – 1871 (c. 454) lx. 595.
1870 – 1872 (c. 623) lii. 659.
1871 – 1873 (c. 835) lviii. 283.
1872 – 1874 (c. 1051) lix. 311.
*1873 – 1875 (c. 1344) lxvii. 693.
*1874 – 1876 (c. 1619) lxv. 399.
*1875 – 1877 (c. 1844) lxxiii. 453.
*1876 – 1879 (c. 2365) lxiii. 573.
*1877 – 1880 (c. 2516) lxiv. 575.
1878 – 79 – 1880 (c. 2647) lxiv. 633.
*1879 – 80 – 1881 (c. 2966) lxxxi. 661.
*1880 – 81 – 1882 (c. 3214) lxi. 433.
*1881 – 82 – 1883 (c. 3750) lxi. 607.
*1882 – 83 – 1884 (c. 4168) lxx. 505.

***U.K. Govt.** Act to enable the Commissioners of Woods, Forests, and Land Revenues to make a road from the church in the parish of Sunk Island to Ottringham, in the East Riding of Yorkshire. 1836. 6 and 7 Gul. IV, c. 91.

*—Bill to authorise application of highway rates to turnpike roads in certain cases. 1836 (446) iv. 211.

*—Bill to authorise the consolidation of turnpike roads in England. 1836 (13, 94) vi. 427, 441.

*—Bill to facilitate the recovery of arrears of highway rates. 1836 (291) iv. 209.

*—Act 6 and 7 Gul. IV, c. 63.

Woolrych (Humphry William) New Highway Act, 5 and 6 Will. IV, c. 50, with notes.

—(2nd ed.) 1836. 8vo. 517.b.32.

***U.K. Govt.** Bill to amend the laws relating to the trusts of turnpike roads in England. 1837 (173), iv. 505.

*—Bill to authorize application of highway rates to turnpike roads in certain cases. 1837 (293) iii. 287.

*—Bill to discharge His Majesty's manor and demesne lands at Newark, in the county of Nottingham, from any costs of repairing Trent and Markham Bridges, and to charge the same on the other hereditary revenues of the Crown. 1837 (221, 284) iii. 421, 425.

*—Act 7 Gul. IV, c. 15.

*—Report from Select Committee on the Highway Rates Bill, with the minutes of evidence. 1837 (457) xx. 343.

Annual abstract of the accounts of the surveyor of the highways of the . . . of . . . and a return of the state of the highways according to the Act 5 and 6 Will. IV, c. 50. (*Blank forms.*) Shrewsbury. 1838 (?) 4to. 712.i.43.

***U.K. Govt.** Bill to amend the laws concerning highways in England. 1838 (470) iv. 361.

*—Bill to authorize application of highway rates to turnpike roads, in certain cases. 1838 (14, 336, 568) iv. 429, 433, 439.

*—Report from Select Committee to inquire into the operations of Act 5 and 6 Will. IV, relating to highways in that part of Great Britain called England. 1838 (463) xxiii. 253.

***U.K. Govt.** Account of the total amount annually received from county rates; total amount annually expended in each year from 1792 to 1838 inclusive, distinguishing the expense of maintaining county bridges (etc., etc.). 1839 (In 562) xliv. 1.

*—Account of the total sum expended, 1827 to 1839, by surveyors of the highways in England and Wales in making, improving, maintaining or repairing the highways. 1839 (562) xliv. 1.

*—Act for continuing certain local turnpike Acts until June 1st, 1841. 1839. 2 and 3 Vict., c. 31.

*—Bill intituled an act for procuring returns relative to the highways and turnpike roads in England and Wales. 1839 (450) iv. 147.

*—Act 2 and 3 Vict., c. 40.

*—Bill to amend the laws concerning highways in England (*i.e.*, 5 and 6 Will. IV, c. 50). 1839 (6, 114, 404) iv. 1, 69, 145.

*—Act 2 and 3 Vict., c. 45.

*—Bill to authorize application of highway rates to turnpike roads, in certain cases. 1839 (337) v. 497.

*—Act 2 and 3 Vict., c. 81.

*—Bill to authorize trustees of turnpike roads to reduce the scale of tolls payable for overweight. 1839 (412) v. 519.

*—Act 2 and 3 Vict., c. 46.

*U.K. Govt. Bill to provide for making unions of turnpike trusts in England, and for valuing and consolidating the bonded debt of such trust. 1839 (350) v. 501.

*—Average of the highway rate in each county in England and Wales, for three years ending October, 1812, 1813, and 1814, and summary of highway returns, 1827 to 1839. 1839 (In 562) xliv. 43.

*—Report from the Select Committee appointed for the purpose of ascertaining how far the formation of railroads may affect the interests of turnpike roads, and the creditors of such trusts; with evidence and appendix. 1839 (295) ix. 369.

*U.K. Govt. Act to amend and explain the General Turnpike Acts, so far as relates to the toll payable on carriages laden with lime for the improvement of land. 1840. 3 and 4 Vict., c. 51.

*—Act to authorize trustees or Commissioners of turnpike roads to appoint meetings for executing their trusts in certain cases. 1840. 3 and 4 Vict., c. 39.

*—Bill to authorize application of highway rates to turnpike roads in certain cases. 1840 (574) ii. 653.

*—Act 3 and 4, Vict., c. 98.

*—Report of the Commissioners for inquiring into the state of the roads in England and Wales; with appendix. 1840 (256, 280) xxvii. 1, 15.

An abstract of accounts for 14 years ending Whitsuntide, 1840 . . . of the Pious Uses Trustees . . . published by order of the Board of Surveyors of Highways for the township of Leeds. 1841.

*U.K. Govt. Bill to amend an act, 3 Geo. IV, for regulating turnpike roads in England; also an Act, 5 and 6 Will. IV, for consolidating the laws relating to highways in England. 1841 (203) iii. 537.

*— Act 4 and 5 Vict., c. 51.

*—Bill to amend the Acts for regulating turnpike roads in England, so far as they relate to certain exemptions from toll. 1841 (264) iii. 535.

*—Act 4 and 5 Vict., c. 33.

*—Bill to authorize application of highway rates to turnpike roads in certain cases. 1841 (391) ii. 491.

*—Act 4 and 5 Vict., c. 59.

*—Bill to provide for repairing, improving, and rebuilding county bridges. 1841 (390) i. 87.

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*—Bill for repairing, improving and rebuilding county bridges, and the approaches thereto. 1841 (50) i. 83.

*—Return of the county totals extracted from abstracts of returns relative to the expense of maintenance of the highways in England and Wales. 1841 (344) xxvii. 79.

*U.K. Govt. Bill to continue local turnpike acts, and to provide for the discharge of the mortgage debts on turnpike roads in England. 1842 (155) iv. 359.

Bayldon (Richard) Remarks, with a tabular statement, showing the operation of the 19th Clause of the proposed General Turnpike Bill on the roads within the borough of Leeds, with an appendix . . . on road management. Leeds. 1843. 8vo. 6375.a.51.(1).

Bayldon (Richard) Suggestions for consolidating the funds and management of turnpike roads, and management within the borough of Leeds. 1843.

Cheltenham Road work on railways. A statement made by the trustees of the Cheltenham District of turnpike roads. 1843.

—(Reprinted.) 1892. Gloucester. 8vo, pp. 15. C.T.228.(4).

*U.K. Govt. Bill to continue, until August 1st, 1844, 4 and 5 Vict., c. 59, for authorising the application of highway rates to turnpike roads. 1843 (506) iii. 133.

*— Act 6 and 7 Vict., c. 59.

*—Bill to continue local turnpike Acts, and to amend the laws relating to turnpike roads in England and Wales. 1843 (41, 486) iv. 495, 511.

*—Returns relative to the income, expenditure, and debts of the several turnpike trusts in England and Wales; to the mortgage of tolls, with proceedings relating thereto; also, to any loss arising from defalcation, etc. 1843 (267) xlviii. 271.

Isle of Wight system of roads, and system of guardians of the poor, not a model but a warning to the Legislature. Southampton. 1845. 8vo. 8254.b.

*U.K. Govt. Bill to continue to Oct. 1st, 1846, 4 and 5 Vict., c. 59, for authorising the application of highway rates to turnpike roads. 1845 (501) iii. 289.

*— Act 8 and 9 Vict., c. 59.

*—Bill to extend certain provisions in the act for consolidating and amending the laws relating to the highways in England. 1845 (513) iii. 291.

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*U.K. Govt. Act to continue until 1st October, 1847, 4 and 5 Vict., c. 59 for authorising the application of highway rates to turnpike roads. 1846. 9 and 10 Vict. c. 49.

*—Bill to amend the law relating to highways in England and Wales. 1846 (181) ii. 279.

*—Revenue of the Wearmouth Bridge Commissioners for tolls; sums expended upon the bridge; sums granted to any public body; purposes for which granted; names of commissioners; authority on which granted; sums lent; rate of interest received, 1841–1845; expenses incurred in opposing the Sunderland Gas and Water Bills; accounts of the passage over the said bridge for 14 days each year, specifying the amount taken for passengers, etc., etc.; copy of the scale of tolls taken since 1830, and alterations during the period. 1846 (407) xlv. 493.

*—Various returns relating to poor rates, county rates, highways, and church rates. 1846 (17) xl, 1.

*U.K. Govt. Act to continue until October 1st, 1848, 4 and 5 Vict. c. 59, for authorising the application of highway rates to turnpike roads. 1847. 10 and 11 Vict., c. 93.

*—Bill to amend the law relating to highways in England and Wales. 1847 (291, 493) i. 563, 617.

*—Instructions to surveying officers appointed by the Commissioners of Woods and Forests to institute preliminary inquiries under 9 and 10 Vict., c. 106, in cases of application for local acts for paving. 1847 (In 33) xxxiii. 87.

*—Reports of the Commissioners of H.M. Woods, Forests, Land Revenues, Works and Buildings, enclosing the reports of the surveying officers appointed under 9 and 10 Vict., c. 106. 1847.

Portsmouth paving, lighting, and improvement. (124–41) xxii. 473.

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York Lendal Bridge and approaches (124–46) xxiii. 739.

*U.K. Govt. Act for making certain alterations and improvements in the approaches to the castle and town of Windsor. 1848. 11 and 12 Vict., c. 53.

*—Bill to continue an act for authorizing the application of highway rates to turnpike roads. 1848 (550) iii. 13.

*—Act 11 and 12 Vict., c. 66.

*—Bill to amend the law relating to highways in England and Wales. 1848 (377, 506) iii. 15, 83.

*—Bill to exempt occupiers of small tenements from the payment of poor and highway rates. 1848 (127) ii. 393.

*—Copy of letter from Sir James M'Adam to Mr. Cornewall Lewis, dated June 11th, 1848, relative to the receipts or expenditure for highways in England. 1848 (494) li. 345.

*—Reports of the Admiralty made under the Acts 9 and 10 Vict., c. 106, and 11 and 12 Vict., c. 129, relative to applications for local acts. Truro turnpike roads. 1848 (148–3) xxxi. 341.

*—Return of the total receipts, expenditure, and debts of turnpike trusts in England (exclusive of Wales), for each of the years 1834 to 1845 inclusive, under various heads. 1848 (492) li. 355.

*—Return showing the total receipts and expenditure on account of the highways in certain counties, under various heads, for the year 1845. 1848 (493) li. 347.

*—Return stating in miles and furlongs the length of road in each turnpike trust in England and Wales. 1848 (752) lx. 413.

*—U.K. Govt. Abstract of the general statements of the income and expenditure of the several turnpike trusts within the Connty Palatine of Lancaster, in the year 1848. 1849 (606) xlvi. 347.

*—Bill for requiring annual returns of the expenditure on highways in England and Wales to be transmitted to the Secretary of State and afterwards laid before Parliament. 1849 (322) iii. 175.

*—Act 12 and 13 Vict., c. 35.

*—Bill to continue an act for authorizing the application of highway rates to turnpike roads. 1849 (456) iii. 171.

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*—Bill to enable overseers of the poor and surveyors of the highways to recover the costs of distraining for rates. 1849 (40, 74, 169) ii. 273, 285, 297.

*—Act 12 and 13 Vict., c. 14.

*—Bill intituled an act to facilitate the union of turnpike trusts. 1849 (396) vi. 573.

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*—Bill for the better assessing and collecting the poor rates and highway rates in respect of small tenements. 1849 (590) vi. 389.

*—Bill to consolidate and amend the laws relating to public roads in England and North Wales. 1849 (27, 145) v. 547, 649.

*—Bill to empower justices of the peace to unite parishes into districts, and to appoint a surveyor of highways to each district. 1849 (312) iii. 179.

*—Report from the committee on Group No. 19 of private bills (relating to certain turnpike road Bills). 1849 (508) xii. 457.

*—Return of the aggregate length of turnpike roads in the county of Middlesex, and the aggregate amount of debt and unpaid interest on all the trusts in that county. 1849 (242) xlvi. 185.

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*U.K. Govt. Return of the number and description of the turnpike trusts in the county of Middlesex, north of the Thames, the length of the roads, and amount of debt and interest on each trust respectively at the date of such return. 1849 (243) xlvi. 353.

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*—Statement of the amounts borrowed from the Exchequer Bill Loan Commissioners by turnpike trusts, date of each loan, rate of interest, with amount of principal repaid, and amount of principal and interest remaining unpaid on Jan. 5th, 1849. 1849 (143) xlvi. 191.

*U.K. Govt. Abstract of return of the name of all turnpike road and bridge trusts in England and Wales, etc. 1850 (696) xlix. 157.

*—Bill for the better assessing and collecting the poor rates and highway rates in respect of small tenements. 1850 (15, 161, 272) viii. 71, 75, 79.

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*—Bill to continue an act for authorizing the application of highway rates to turnpike roads. 1850 (550) iii. 241.

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*—Bill to provide for more effectually maintaining, repairing, improving, and rebuilding bridges in cities and boroughs. 1850 (351) i. 201.

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*—Bill to amend the law for uniting parishes into districts, and the appointment of district surveyors of highways over the parishes so united. 1850 (2) iii. 287.

*—Bill to amend the law relating to highways in England and Wales. 1850 (47, 217) iii. 245, 265.

*—Report of the Secretary of State for the Home Department, made under the Act 3 and 4 Will. IV, c. 80, relative to applications for turnpike acts. 1850 xlix.

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*—Return from turnpike trusts in England and North Wales, showing the cost of Parliamentary renewals from the year 1800 to 1848; the sum borrowed during the existence of the several trusts; the amount paid off; the amount of debt on January 1st, 1849; rate of interest; amount of interest unpaid, distinguishing the amount unclaimed; also stating the amount of interest converted into principal. 1850 (255) xlix. 519.

*—Return of the amount of aid contributed by parishes to turnpike trusts in England and Wales in each year from January 1st, 1837, to January 1st, 1848. 1850 (543) xlix. 269.

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*—Return of the several amounts borrowed from the Exchequer Bill Loan Commissioners by turnpike trusts in England and Wales, the date of each loan, rate of interest, amount of principal repaid, and amount of principal and interest remaining unpaid, on January 5th, 1850. 1850 (587) xlix. 517.

*—Return showing the aggregate number of miles of turnpike and parish roads in England and Wales travelled over by mail coaches, mail carts and horse posts, during the week ending April 17th, 1850; with statement of the estimated amount of toll which they would be liable to pay on each turnpike trust if not exempted by the General Turnpike Acts. 1850 (744) xlix. 273.

*—Return showing the total receipts, expenditure and debts of turnpike trusts in England and North Wales in each year, 1834 to 1847, under various heads. 1850 (544) xlix. 555.

*U.K. Govt. Bill to continue an act for authorizing the application of highway rates to turnpike roads. 1851 (439) iii. 283.

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*—Bill to amend an act of the last session of Parliament, for the better assessing and collecting the poor rates and highway rates in respect of small tenements. 1851 (159) vi. 69; as amended by committee, (223) vi. 73.

*—County reports of the Secretary of State, under the Act, 3 and 4 Will. IV, c. 80. No. 1—Kent. 1851 (1376) xlviii. 163.

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*U.K. Govt. Reports of the Secretary of State for the Home Department, made under the act 3 and 4 Will. IV, c. 80, relative to applications for turnpike acts. 1851 xlviii.

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Highway surveyor's guide. 1852. 4th ed. 16mo. 6305.a.13.

Fry (Alfred Augustus) The General Highways Act, 5 and 6 Will. IV, c. 50, and the statutes and cases relating thereto, brought down to the present time. 1852. 8vo. 1380.a.

U.K. Govt. Abstract of the general statements of the receipts and expenditure on account of the highways of the several parishes, townships, etc., in England and Wales, for the year ending 25th March.

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*—Bill for making a turnpike road between Stone Creek and Sunk Island Church in the county of York, and between Sunk Island Church and Patrington Haven, and for consolidating with such roads the present turnpike road from Sunk Island Church to Ottringham, and for constructing quays and wharfs at Stone Creek. 1852 (329) iv. 347; as amended in committee (408) iv. 357.

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*—Bill to continue an act for authorizing the application of highway rates to turnpike roads. 1852 (276) ii. 215.

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*—Bill to explain and amend the Public Health Act, 1848, so far as respects the rates for the repair of highways. 1852 (466) iv. 161; as amended in committee (496) iv. 165.

*—Report of the Secretary of State for the Home Department on the state and condition of the turnpike roads in the county of Hants. 1852 (1521) xliv. 263.

*—Report by the Secretary of State for the Home Department on the state and condition of the turnpike roads in the county of Surrey 1852 (1458) xliv. 207.

*—Report by the Secretary of State for the Home Department on the state and condition of the turnpike roads in the county of Sussex. 1852 (1459) xliv. 233.

*—Reports of the Secretary of State under 3 and 4 Will. IV, c. 80, relative to turnpike trusts. 1852 (1443, 1452, 1456, 1470, 1497) xli. 1, 49, 89, 131, 157.

*—Admeasurement of the public highways in the Melton Mowbray division in the county of Leicester, and the cost thereof, for the year ending March 25th, 1853. 1853 (538) xcvii. 729.

*—Bill to continue an act for authorizing the application of the highway rates to turnpike roads. 1853 (762) iii. 569.

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*U.K. Govt. Reports relating to the circumstances of the undermentioned turnpike trusts applying for local Acts, made by direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV., c. 80. 1853. 1st [1617] xcvii. 495; 2nd [1621] 535; 3rd [1630] 567; 4th [1668] 595.

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*—Return showing the amounts borrowed from the Public Works Loan Commissioners by turnpike trusts in England and Wales, date of each loan, rate of interest, amount of principal repaid, and unpaid on 5th January, 1853, etc. 1853 (619) xcvii. 479.

*—Return showing the total receipts, expenditure, and debts of the turnpike trusts in England and North Wales, 1834 to 1850. 1853 (12) xcvii. 477.

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*—Bill to amend the law for uniting parishes into districts, and the appointment of district surveyors of highways over the parishes so united. 1854 (40) iii. 51.

—Reports of the Admiralty relating to applications for local acts. 1854.

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*—Reports relating to the circumstances of the undermentioned turnpike trusts applying for local acts, made by direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV, c. 80. 1854. 1st (1738) lxiv. 201; 2nd (1749) 233; 3rd (1750) 265; 4th (1760) 289.

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*— Act 18 and 19 Vict., c. 102.

*—Reports of the Admiralty relating to applications for local acts. 1855.
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*—Reports relating to the circumstances of the undermentioned turnpike trusts applying for local Acts, made by direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV, c. 80. 1855. 1st [1903] xlix. 113; 2nd [1909] 145; 3rd [1917] 173; 4th [1923] 205; 5th [1925] 237; 6th [1934] 253.
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***U.K. Govt.** Return showing the total receipts, expenditure, and debts of the turnpike trusts in England and North Wales, 1834 to 1852. 1855 (13) xlix. 331.

*—Bill to confirm certain provisional orders made under an Act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts, and to extend the provisions of the said Act. 1856 (36) vi. 505.

*— Act 19 and 20 Vict., c. 12.

*—Act to extinguish certain rights of way, and to stop up certain roads and paths near the camp at Aldershot. 1856. 19 and 20 Vict., c. 66.

*—Reports relating to the circumstances of the undermentioned turnspike trusts applying for local Acts, made by direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV, c. 80. 1856. 1st [2044] lviii. 119; 2nd [2059] 145; 3rd [2066] 173; 4th [2067] 197; 5th [2075] 221; 6th [2083] 245.

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*—Act enabling the Commissioners of the Admiralty to purchase certain lands in the Parish of Chatham, and to stop up, divert, or alter certain ways in the said parish. 1857. 20 and 21 Vict., c 30.

*—Bill to confirm certain provisional orders made under an Act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts. 1857 (60, Sess. 2) iv. 669.

*—Act 20 and 21 Vict., c. 9.

*U.K. Govt. Bill to amend the Laws relating to the management of the highways in England and Wales. 1857 (56, Sess. 2) ii. 139.

*—Reports of the Admiralty relating to applications for local Acts. 1857.
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*—Reports relating to the circumstances of the under-mentioned turnpike trusts applying for local Acts, made by direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV, c. 80. 1857. 1st [2225, Sess. 2] xxxvii. 469; 2nd [2226, Sess. 2] 485; 3rd [2227, Sess. 2] 505.
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*—Return of the length of highways in the several parishes in the county of Middlesex, not being part of the metropolis roads, amount of assessment to the poor, and amount of rate in the pound levied for highway rate in 1856. 1857 (8, Sess. 1) xiii. 141.

*—Bill to confirm certain provisional orders made under an Act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts, and to extend the provisions of the said Act. 1858 (200) iv. 645.

*— Act 21 and 22 Vict., c. 80.

*—Reports relating to the circumstances of the undermentioned turnpike trusts applying for local Acts, made by direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV, c. 80. 1858. 1st [2344] xxxii. 413; 2nd [2349] 433.
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*—Bill for the better management of highways in England. 1859 (4, Sess. 1) i. 755; as amended in Committee, (63) i. 779.

*—(Do.) (44, Sess. 2) i. 427.

*—Bill to confirm certain provisional orders made under an Act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts. 1859 (92, Sess. 2) ii. 461.

*—Report from the Select Committee of the House of Lords, appointed to inquire into the operation of the Act 13 and 14 Vict., c. 99, for the better assessing and collecting the poor rates and highway rates in respect of small tenements, and of the Act of last session, c. 43, to amend the municipal franchise in certain cases; with the proceedings, minutes of evidence, appendix, and index. 1859 (56, Sess. 2) vii. 269. Reprinted 1867 (74) viii. 603.

*U.K. Govt. Reports relating to the circumstances of the undermentioned turnpike trusts applying for local Acts, made by direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV, c. 80. 1859. 1st [2485, Sess. 1] xiii. 705; 2nd [2486, Sess. 1] 727; 3rd [2490, Sess. 1] 747.
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*—Return of the amount of toll revenue, debt, arrears of interest, number of miles of road, etc., belonging to each turnpike trust in the county of Essex; number and names of the bridges maintained out of, and annual value of the property assessed to the county rate; number and names of private toll bridges used by the public; 1856 to 1858. 1859 (72, Sess. 2) xxvi. 271.

*—Return of the names of the parishes in England where an order has been made by the vestry to put in force the Act 13 and 14 Vict., c. 99, for the better assessing and collecting the poor and highway rates in respect of small tenements. 1859 (225, Sess. 1) xxiv. 591. Reprinted 1866 (125) lxi. 25.

*—Act for extinguishing certain rights of way through Cole Barracks (Portsmouth). 1860. 23 and 24 Vict., c. 49.

*—Bill to confirm certain provisional orders made under an Act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts. 1860 (254) vi. 703.

*—Act 23 and 24 Vict., c. 70.

*—Bill to continue an Act for authorising the application of the highway rates to turnpike roads. 1860 (255) iii. 653.

*—Act 23 and 24 Vict., c. 67.

*—Bill for the better management of highways in England. 1860 (6) iii. 629.

*—Bill to remove doubts as to the power to open highways, roads, and streets for certain purposes. 1860 (168) iii. 657; amended in Committee, (179) iii. 661.

*—Reports relating to the circumstances of the undermentioned turnpike trusts applying for local Acts, made by direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV, c. 80. 1860. 1st [2620] xxxi. 519; 2nd [2627] 539; 3rd [2637] 561; 4th [2659] 593.
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*U.K. Govt. Return of turnpike trusts in England and North Wales, showing, with respect to each, name of trust, title and date of local Acts, date at which they will expire, or whether continued by the General Acts. 1860 (39) lxi. 265.

*—Bill for the better management of highways in England. 1861 (6) ii. 541.

*—Bill to confirm certain provisional orders made under an Act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts, and to extend the provisions of the said Act. 1861 (226) iv. 581.

*—Act 24 and 25 Vict., c. 46.

*—Reports relating to the circumstances of the undermentioned turnpike trusts applying for local Acts, made by direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV, c. 80. 1861. 1st [2776] xxxiii. 141; 2nd [2781] 161; 3rd [2784] 181; 4th [2791] 193.

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*—Return of the names, salaries, etc., of surveyors and other officers paid by the trustees of the first and second districts of the Essex turnpike roads; also, number of miles; and income and expenditure in 1860. 1861 (112) lvii. 409.

*Freeland (Humphry William) The Highways Bill of 1862. 1862. 8vo, pp. 16. 8776.cc.1.(7).

Glen (William Cunningham) The Act for the Better Management of Highways. 1862. 12mo. 6425.aa.10.

—(2nd ed.) 1863.

—(3rd ed.) 1864. 6425.aa.11.

Owston (Hiram Abiff) The Act for the better management of highways in England (25 and 26 Vict., c. 61) with an introduction setting forth its objects and uses. 1862. 12mo, pp. viii, 86. 6425.aa.36.

*U.K. Govt. Act for extinguishing certain rights of way through the Netley Hospital Estate in the Parish of Hound (Southampton). 1862. 25 and 26 Vict., c. 16.

*—Bill for the better management of highways in England. 1862 (1) ii. 243; amended by Select Committee, (66) ii. 265; amended by Select Committee, and in Committee, (135) ii. 289; Lords' amendments, (234) ii. 251.

*—Act 25 and 26 Vict., c. 61.

*—Bill to confirm certain provisional orders made under an Act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts. 1862 (185) v. 477.

*—Act 25 and 26 Vict., c. 56.

*—Minutes of proceedings of the Select Committee on the Highways Bill, 1862. 1862 (226) xvi. 639.

*—Reports relating to the circumstances of the undermentioned turnpike trusts applying for local Acts, made by direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV, c. 80. 1862. 1st [2930] xxviii. 213; 2nd [2932] 237; 3rd [2935] 253; 4th [2938] 273.

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Owston (Hiram Abiff) Highway law: a manual for the use of waywardens, clerks . . . to which are added notes, forms, cases and statute; hints as to road-making, etc. Edinburgh. 1863. 8vo, pp. xxi, 258. 6425.aa.37.

***U.K. Govt.** Bill to confirm certain provisional orders made under an Act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts. 1863 (227) v. 237; Lords' Amendments, (269) v. 245.

*—Act 26 and 27 Vict., c. 98.

*—Reports relating to the circumstances of the undermentioned turnpike trusts applying for local Acts, made by direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV, c. 80. 1863. 1st [3092] xxviii. 227; 2nd [3101] 243; 3rd [3105] 263; 4th [3120] 283; 5th [3125] 295.

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*—Return of counties which have been divided into highway districts, or in which any highway district or districts have been formed, under the Act 25 and 26 Vict., c. 62; stating the number and names of districts, miles of road, number of waywardens, etc. 1863 (315) l. 457.

Owston (Hiram Abiff) Highway Acts of 1862 and 1864 . . . with an introduction . . . notes and . . . index. 1864. 8vo. pp. 93. 6425.aa.38.

—(2nd ed). 1864.

***U.K. Govt.** Bill to amend the act for the better management of highways in England. 1864 (113) ii. 201; amended by Select Committee, (177) ii. 223; Lords' amendments, (234) ii. 251.

*—Act 27 and 28 Vict., c. 101.

U.K. Govt. Bill to confirm certain provisional orders made under an act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts. 1864 (196) iv. 567.

*—Act 27 and 28 Vict., c. 79.

*—Bill to provide for the erection of county bridges in England and Wales. 1864 (77) i. 543.

*—Copies of all memorials from public bodies or officers addressed to the Home Department, with reference to the Highways Act, 25 and 26 Vict., c. 61. 1864 (91, 222) l. 269, 291.

*—Correspondence with the office of H.M. Works, relating to the private road leading to the Roehampton Gate of Richmond Park. 1864 (438) xxxiv. 185.

*—Reports relating to the circumstances of the undermentioned turnpike trusts applying for local acts, made by the direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV, c. 80. 1864. 1st [3274] xxxi. 151; 2nd [3282] 167; 3rd [3296] 187.

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*—Return of counties which have been divided into highway districts, or in which any highway district or districts have been formed, under the Act 25 and 26 Vict., c. 62, stating the number and names of districts, miles of road, number of waywardens, number and salaries of surveyors and other paid officers employed in each district, etc. 1864 (147) l. 309.

*—Return of turnpike trusts in England and North Wales, the acts for which have been renewed by Parliament since 1849, showing the date of renewal, amount of debt existing on each such trust in 1850 and 1860, with rate of interest and amount unpaid, and of turnpike trusts with respect to which arrangements have been made under the sanction of the Secretary of State, up to January 1st, 1860, with the amount of debt on each such trust, rate of interest, and amount unpaid in 1850 and 1860. 1864 (473) l. 591.

*—Annual amount of the local taxation for paving, cleansing, lighting, sewerage, main drainage, and improvements, levied in each of the parishes, districts, and parts (including the City of London) composing the district of the Metropolitan Local Management Act, 1859 to 1863, rate in the pound at which the same is assessed in each district, etc., and similar return for Manchester, Liverpool, Birmingham, Sheffield, Leeds, Brighton, Hastings, and Tunbridge Wells. 1865 (80) xlvi. 387.

*—Bill to confirm certain provisional orders made under an act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts. 1865 (225) iv. 589.

*U.K. Govt. Act 28 and 29 Vict., c. 91.

*—Bill to discontinue the taking of toll on the turnpike roads now existing in England and Wales, and to provide for the maintenance of such roads as public highways, and for the discharge of the debts due thereon by voluntary commutation. 1865 (128) iv. 571.

*—Memorials from the inhabitants of Devizes for and against the abolition of the turnpike trusts in the immediate neighbourhood of the town, and correspondence with the Home Office. 1865 (303) xlvii. 565.

*—Reports relating to the circumstances of the undermentioned turnpike trusts applying for local Acts, made by direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV, c. 80. 1865. 1st [3446] xxix. 217; 2nd [3453] 233; 3rd [3468] 257.

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*—Return of counties which have been divided into highway districts, or in which any highway district or districts have been formed, under the Act 25 and 26 Vict., c. 62: stating the number and names of districts, miles of road, number of waywardens, number and salaries of surveyors and other paid officers employed in each district. 1865 (449) xlvii. 415.

*—Return showing, in respect to the Surrey and Sussex, New Cross and Bermondsey, Rotherhithe and Deptford turnpike trusts, the districts or parishes in which they are situated, length of road in each, and number of toll-gates which will be removed on the expiration of the local acts. 1865 (157) xlvii. 559.

*—Act to confirm a provisional order under the Local Government Act, 1858, relating to the district of Ventnor, and for the repeal of the South Wales Highways Act in Briton Ferry. 1866. 29 and 30 Vict., c. 79.

—Bill to confirm certain provisional orders made under an act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts. 1866 (228) v. 539.

*—Act 29 and 30 Vict., c. 92.

—Bill to make better provision for the maintenance and repair of certain bridges in England, commonly called Hundred Bridges. 1866 (178) iii. 157.

—Bill to provide for the maintenance of the turnpike roads of England and Wales as public highways, and for the discharge of the debts due thereon by voluntary commutation. 1866 (39, 113) v. 499, 519.

—Reports relating to the circumstances of the undermentioned turnpike trusts applying for local acts, made by direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV, c. 80. 1866. 1st [3613] xx. 163; 2nd [3621] 171; 3rd [3627] 187; 4th [3629] 203; 5th [3632] 219; 6th [3643] 235.

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U.K. Govt. Bill for extinguishing certain rights of way over and along Barrack-lane, in the borough of New Windsor, in the county of Berks. 1867 (229) i. 391.

*— Act 30 and 31 Vict., c. 109.

—Bill to confirm certain provisional orders made under an act of 15 Vict. to facilitate arrangements for the relief of turnpike trusts. 1867 (233) vi. 509.

*—Act 30 and 31 Vict., c. 66.

—Memorials from the inhabitants of Devizes for and against the abolition of the turnpike trusts in the immediate neighbourhood of the town, and correspondence with the Home Office. 1867 (250) lxii. 505.

—Reports relating to the circumstances of the undermentioned turnpike trusts applying for local acts, made by direction of the Secretary of State for the Home Department, under Act 3 and 4 Will. IV, c. 80. 1867. 1st [3788] xix. 397; 2nd [3802] 409.

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—Bill to confirm certain provisional orders made under an act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts. 1868 (200) v. 579.

*— Act 31 and 32 Vict., c. 66.

—Correspondence with the office of H.M. Works, relating to the private road leading to the Roehampton Gate of Richmond Park. 1868 (319) lv. 601.

—Return of counties which have been divided into highway districts, or in which any highway district or districts have been formed, under the Act 25 and 26 Vict., c. 62; stating the number and names of districts, miles of road, number of waywardens, number and salaries of surveyors and other paid officers employed in each district. 1868 (505) lxii. 657.

A scheme of county administration, embracing the management of the poor, the highways, and the county finances, with notes and explanations. By a county magistrate. 8vo. 1869. 6282.b.16.

U.K. Govt. Bill to enable parishes in England and Wales to provide for the maintenance of turnpike roads within their respective districts as public highways, and to discharge the debts due thereon by parochial assessment or voluntary commutation. 1869 (52) v. 351.

—Correspondence with the office of H.M. Works, relating to the private road leading to the Roehampton Gate of Richmond Park. 1869 (400) l. 627.

—Abstract of replies received by the Home Department as to whether the new system introduced by the Highway Acts of 1862 and 1864 had given satisfaction to the ratepayers or not. 1870 (170) lix. 599.

—Abstract returns of all tolls, dues, etc., received in respect of bridges, and ferries, and of the expenditure thereof, for the latest period of twelve months preceding the month of June, 18—, for which the accounts are made up. 1870 *et seq.*

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—Bill to confirm a certain provisional order, made under an Act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts. 1870 (129) iv. 739.

*—Act 33 and 34 Vict., c. 22.

—Local taxation returns for England and Wales.

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1895–96—1897 (*313, *373) lxxv. 131. 1898 (*19) lxxvi. 1.

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*1906–07—1908 (333) xci. 771. 1909 (140, 153, 298, 248) lxxiv. 1.
*1907–08—1909 (299, 322) lxxv. 1. 1910 (235, 86, 160, 161, 199, 258) lxxvii. 1.
*1908–09—1910 (259) lxxviii. 1. 1911 (89, 163, 62, 163–I, 251).
*1909–10—1911 (270, 270–I, 312, 311, 270–II, 301).
*1910–11—1912 (264, 268, 273).

U.K. Govt. Return of places in the several counties in England and Wales which have adopted the Highways Acts, 25 and 26 Vict., c. 61. (in continuation of 505 of 1867–68), with additional columns, showing, with regard to each county in which the act has been only partially adopted, the number and total acreage of parishes which have not adopted it, and the rate in the £ levied as highway rate in each highway district, during the year ending March 25th, 1869. 1870 (264) lix. 587.

—Returns from each turnpike trust in England and North Wales, stating the length of road in miles, furlongs and yards, amount of bonded debt on December 31st, 1869, distinguishing portions unclaimed, and amount of unpaid interest due thereon. 1870 (438) lix. 487.

—Bill to confirm a certain provisional order made under an act of 15 Vict., to facilitate arrangements for the relief of turnpike trusts. 1872 (256) vi. 435.

*—Act 35 and 36 Vict., c. 72.

—Bill to amend the Annual Turnpike Acts Continuance Act, 1871, so far as the same relates to the Kilburn Road and the Harrow Road; and for other purposes. 1872 (57) iii. 147; as amended by Select Committee (127) iii. 167.

—Local Government Board, annual Report. 1872 *et seq.*
Includes section on turnpike trusts; later, on main roads, and on highways.

*1871–72—1872 [c. 516] xxviii. 1.
*1872–73—1873 [c. 748] xxix. 1.
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*1884–85—1885 [c. 4515] xxxii. 1.
*1885–86—1886 [c. 4844] xxxi. 1.
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*1889–90—1890 [c. 6141] xxxiii. 1.
*1890–91—1891 [c. 6460] xxxiii. 1;
*1891–92—1892 [c. 6745] xxxviii. 1.
*1892–93—1893 [c. 7180] xliii. 1.
*1893–94—1894 [c. 7500] xxxviii. 1.
*1894–95—1895 [c. 7905] li. 1.
*1895–96—1896 [c. 8212] xxxvi. 1.
*1896–97—1897 [c. 8583] xxxvi. 1.
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*1898–99—1899 [c. 9444] xxxvii. 1.
*1899–1900—1900 [cd. 292] xxxiii. 1.
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*1901–02—1902 [cd. 1231] xxxv. 1.
*1902–03—1903 [cd. 1700] xxiv. 1.
*1903–04—1904 [cd. 2214] xxv. 1.
*1904–05—1905 [cd. 2661] xxxi. 1.
*1905–06—1906 [cd. 3105] xxxv. 1.
*1906–07—1907 [cd. 3665] xxvi. 1.
*1907–08—1908 [cd. 4347] xxx. 347.
*1908–09 (Pt. II.)—1909 [cd. 4928] xxix. 1.
*1909–10 (Pt. II.)—1910 [cd. 5275] xxxviii. 489.
*1910–11 (Pt. II.)—1911 [cd. 5978].

U.K. Govt. Report from the Select Committee on Turnpike Acts continuance (Bruton Trust), together with the proceedings of the committee, and minutes of evidence. 1872 (313) xii. 459.

—Return of the mileage and expenditure for 1868–69 in respect of highways in the petty sessional divisions, or parts of petty sessional divisions, in which the Act 24 and 25 Vict., c. 61, has not been adopted. 1872 (278) lii. 827.

Surveyors' of the highways account book. Grantham. 1873. Obl. 4to. 8228.e.

Hovendon (J. H) New railways and new streets. 1873. 8vo.

U.K. Govt. Return of highway districts in each county in England constituted under the Highway Acts 1862 and 1864, and names of parishes in each district. 1873 (143) lviii. 193.

—Return showing with regard to each local board district in England and Wales, length of the several roads which, in consequence of the abolition of turnpike trusts, had become, prior to Lady-day, 1872, chargeable upon the rates of the local board; cost of maintenance and repairs of such roads in 1871–72; length of roads within the district still under turnpike trusts; and length of roads, other than those under turnpike trusts, maintained by the local board. 1873 (377) lviii. 255.

—Returns of the mileage and expenditure for the year ending March, 1872 (in continuation of 278 of 1872), in respect of highways in the petty sessional divisions, or parts of petty sessional divisions, in which the Act 25 and 26 Vict., c. 61, has not been adopted; also in respect of highways in districts which have been formed under the provisions of the Act 25 and 26 Vict., c. 61, and which have not been dissolved, and of the counties or parts of counties in which the Act 25 and 26 Vict., c. 61, has at any time been adopted, but in which the districts have been dissolved, with the names of such districts. 1873 (357) lviii. 267.

—Return of the total number of turnpike trusts in existence on December 31st, 1864; summary of those which have expired in each year since that date, or which will expire up to December 31st, 1874; number which will remain in existence on and after December 31st, 1874, etc. 1874 (224) lix. 389.

U.K. Govt. Statement showing for each county in England and Wales the toll income and the amount expended for the repairs of roads. 1874 *et seq.*
*—1870 and 1871—1874 [c. 1071] xxv. 531.
*—1871 and 1872—1875 [c. 1328] xxxi. 304.
*—1872 and 1873—1876 [c. 1585] xxxi. 249.
*—1873 and 1874—1877 [c. 1865] xxxvii. 194.
*—1874 and 1875—1878 [c. 2130] xxxvii. Pt. I, 371.
*—1875 and 1876—1879 [c. 2375] xxviii. 154.
—Return showing number of turnpike trusts in existence on December 31st, 1864; number which have expired in each year since that date up to December 31st, 1874; number of trusts so abolished; number in existence on January 1st, 1875; number which will in future expire in each year, etc. 1875 (95) lxvii. 767.
*—Bill to amend the law relating to highways in England, and for other purposes. 1876 (129) iii. 157.
—Return of places in the several counties in England and Wales which have adopted the Highways Act, 25 and 26 Vict., c. 61, salaries of officers, etc.; showing also, with regard to each county in which the act has been only partially adopted, number and total acreage of parishes which have not adopted it. rate in the £ levied as highway rate in each highway district during 1868–69, etc. 1876 (233) lxv. 381.
—Return with respect to the expenditure for turnpike roads in England and Wales in each year, 1865 to 1873, and of the total sum paid by parishes to turnpike trusts in England and North Wales unable to maintain their turnpike roads, and the amount per mile thus spent. 1876 (266) lxv. 473.
—Return of names of turnpike roads disturnpiked between Dec. 31st, 1870, and June 30th, 1878, in each county in England and Wales, with number of miles of each and cost of maintaining the same; similar return with respect to the turnpike roads, the trusts of which have been fixed by the Turnpike Continuance Acts to expire within 5 years from June 30th, 1878; and number of the trusts which will expire within the same period if not extended by any of the Turnpike Continuance Acts. 1878 (353) lxvi. 683.
—Return of the turnpike roads disturnpiked between Dec. 31st, 1870 and Dec. 31st, 1878. 1878 (335) lxvi. 675.
—Bill to amend the law with respect to returns of receipts and expenditure as regards highways, and to dispense with the verification before justices of the accounts of surveyors of highways. 1879 (227) iii. 351; Lords' amendments (255) iii. 355.
*— Act 42 and 43 Vict., c. 39.
—Bill to enable persons interested therein to co-operate for the making, improving, and maintaining of occupation roads and ways in England. 1879 (241) iv. 591.
—Return of the mileage and expenditure of highway districts in England and North Wales for 1876. 1879 (139) lxiii. 551.
Baker (Thomas) Law of highways in England and Wales, including bridges and locomotives. 1880. 12mo, pp. x, 446. 6425.df.3.
***U.K. Govt.** Bill to amend the law relating to the providing of funds for the maintenance of highways in England. 1880 (203) iii. 401.
—Bill to make provision for borrowing in respect of certain county bridges. 1880 (226) i. 523.
*—Act 43 and 44 Vict., c. 5.
Spearman (Robert) The common and statute law relative to highways in England and North Wales. 1881. 8vo, pp. 511. 6425.df.7.

U.K. Govt. Bill to amend the law relating to the providing of funds for the maintenance of highways in England. 1881 (38) ii. 303.

—Return showing, for each county in England and North Wales, the mileage of the main roads existing on Jan. 1st, 1881, distinguishing disturnpiked roads which have become main roads, and roads declared main roads by the county authority. 1881 (226) lxxxi. 635.

—Return showing, for each county in England and North Wales, the mileage of the main roads existing in each urban sanitary district on Jan. 1st, 1881. 1881 (402) lxxxi. 639.

—Bill to confer powers on the Secretary of State for the War Department for the formation of certain roads and the stopping up of other roads near the camp at Aldershot. 1882 (177) i. 41.

—Bill to extend certain provisions of the Poor Rate Assessment and Collection Act, 1869, to the highway rate, and for other purposes. 1882 (209) ii. 469.

*—Act 45 and 46 Vict., c. 27.

—Minute of the President of the Local Government Board as to the proposed appropriation of the grant of £250,000 in aid of the cost of maintenance of disturnpiked and main roads in England, Wales, and Scotland. 1882 (365) lxi. 341.

Old English turnpikes. *Engineering News*, Jan. 20, 1883.

U.K. Govt. Bill to amend the law relating to highways in the Isle of Wight, and for other purposes. 1883 (268) vi. 321.

*—Act 46 and 47 Vict., c. 226.

*—Act to provide for the repair and maintenance of certain highways in the Forest of Dean, in the county of Gloucester. 46 and 47 Vict., c. 87.

—Bill to provide for the repair and maintenance of certain highways in the New Forest, in the county of Southampton. 1883 (135) viii. 47; as amended by Select Committee (225) viii. 55.

*—Act 46 and 47 Vict., c. 86.

—Bill to amend the law relating to highways. 1884 (95) iii. 361.

Buckingham (W.) A turnpike key, or an account of the proceedings of the Exeter Turnpike Trustees, 1753–1884. 1885.

U.K. Govt. Bill to amend the law relating to the highways [so far as relates to Wilts, Dorset, Somerset, Devon, and Cornwall]. 1885 (89) ii. 103.

*— Act 48 and 49 Vict., c. 27.

Gloucester. Highway management: proceedings of a conference held at the Shire Hall. Gloucester. 1886. 8vo, pp. vi, 55. 8768.bbb.26.(9).

U.K. Govt. Bill to amend the law relating to highways. 1886 (149—Sess. I) ii. 503.

***Blackburn: Chamber of Commerce.** Petition to House of Commons against van and wheel tax. 1888. [Annual report, pp. 20–22.]

***U.K. Govt.** Act to amend the laws relating to local government in England and Wales, and for other purposes connected therewith. 1888 51 and 52 Vict., c. 41.

Section 6: Powers of county councils as to bridges. Section 11: Maintenance of main roads. Sections 12–13: Roads and tolls in the Isle of Wight and in South Wales.

—Bill for the abolition of the Forest of Dean turnpike trust. 1888 (337) iii. 37.

—Bill to relieve the inhabitants of the Hundred of Doddingtree, in the county of Worcester, of the obligation to repair and maintain the bridges of the Hundred, and to transfer to the county of Worcester the liability of the borough of Bewdley to repair and maintain the bridge over the River Severn in or near to such borough. 1888 (352) ii. 499.

*U.K. Govt. Report from the Select Committee on the Forest of Dean turnpike trust; with the proceedings. 1888 (209) xii. 113.
*—Statements as to the licence duties, probate duty grant, and existing Parliamentary grants dealt with by the Local Government Bill, 1888, and the estimated annual expenditure on disturnpiked and main roads in England and North Wales, and turnpike roads in South Wales. 1888 [C. 5424] lxxxvi. 71.
*Wright (Robert Samuel) and Hobhouse (Henry) Outline of local government and local taxation in England and Wales (excluding the Metropolis). 1888. 8vo, pp. xvi, 130, xxxiv. 6425.e.13.
*—(Another ed.) 1894. pp. xxi, 152. 6426.f.5.
Hertfordshire: County Council. Report as to the best system for the maintenance of main roads. By Urban A. Smith, county surveyor. 1889. 8vo, pp. 18.
Phillips (J. E.) The Local Government Act, 1888, as it affects highways. 1889. 8vo, pp. 34. 6145.aa.36(1).
Haupt (Lewis M.) Country roads: their relations to other lines of communication and to the state. 1890.
Hooley (E. P.) Maintenance of main roads and county management. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. 16, pp. 174–201. 1890.
Hodge (L. P.) The rights and liabilities of adjoining owners with regard to highways; *with discussion*. Surveyors' Institution, *Transactions*, Vol. 231, pp. 95–122. 1891.
U.K. Govt. Bill to confer further powers on county councils and other authorities with respect to main roads and other highways and bridges. 1891 (384) iv. 693.
*—Act 54 and 55 Vict., c. 63.
—Return showing, for year ended March 31st, 1890, the amounts paid out of the Local Taxation Account . . .; amounts paid by each council for main roads, distinguishing the amounts expended by the council themselves from the amounts paid by them to other local authorities; amounts contributed by each council for highways and public footpaths which are not main roads. 1891 (138) lxviii. 25.
Winstone (Benjamin) Extracts from the minutes of the Epping and Ongar Highway Trust from . . . 1769 to . . . 1870. 1891. 8vo, pp. vi, 303. 10368.h.29.
Robinson (James) County management of main roads. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 18, pp. 169–198. 1892.
Proposed bridge over the Mersey at Liverpool. *Engineering Record*, July 15, 1893.
*U.K. Govt. Act to make further provision for local government in England and Wales. 1893. 56 and 57 Vict., c. 73.
Section 82 deals with highways in rural districts.
—Return showing . . for each borough [in England and Wales] and for the part of every county not comprised in any borough, the population in 1891, the rateable value in 1889 and 1892, and the expenditure on main roads in each year. 1893 (486) lxxvii. 461.
Roads and bridges in Buckinghamshire. *Surveyor*, Sept. 6, 1894.
A street index (for Stockport). *Surveyor*, Jan. 4, 1894.
Swindlehurst (J. E.) Maintenance of main roads in urban districts. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 20, pp. 272–297; *Surveyor*, July 19, 1894.
Highway management at Tadcaster. *Surveyor*, Oct. 11, 1895.
Main roads in Buckinghamshire. *Surveyor*, May 23, 1895.
Road management at Brighton. *Surveyor*, Feb. 28, 1895.
Strengthening Lendal Bridge (York). *Engineer*, Dec. 27, 1895, *illus.*

U.K. Govt. Bill to amend the law for the administration of highways. 1896 (212) iii. 339.
—Bill to transfer the maintenance of parish highways in rural parishes to the parish council or parish meeting. 1896 (213) iv. 179.
Proposed road through the Sty Head Pass. *Engineer*, Dec. 31, 1897.
***Huddersfield.** Report on powers of the Corporation to make bye-laws governing the use of roads within the borough. Minutes of Borough Council, pp. 873–874. 1897.
Thomas (R. J.) The Buckinghamshire road system: equalisation of highway rating. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 23, pp. 340–362; *Surveyor*, July 16, 1897.
U.K. Govt. Bill to amend the law for the administration of highways. 1897 (129) iv. 1.
Dartford roads. *Surveyor*, Aug. 5, Sept. 9, 1898.
The Dorchester main road arbitration. *Surveyor*, Dec. 30, 1898.
Footpaths on main roads (in Derbyshire). *Surveyor*, July 15, 1898.
Main road maintenance dispute at Gainsborough: Local Government Board Inquiry. *Surveyor*, Dec. 23, 1898.
The maintenance of main roads: an arbitration case at Bournemouth. *Surveyor*, Dec. 9, 1898.
Questionable etiquette [in matter of Sheffield paving]. *Surveyor*, Jan. 28, 1898.
Street improvement at Hull. *Surveyor*, June 17, 1898.
Taylor (H. W.) Notes on the specifications of Tyneside roads. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 24, pp. 17–23. 1898.
Bournemouth main road arbitration. *Surveyor*, March 24, 1899.
British *versus* foreign granite [in Norfolk]. *Surveyor*, Jan. 13, 1899.
The Guernsey roads. *Surveyor*, Jan. 27. 1899.
Highway management [in Cumberland]. *Surveyor*, June 2, 1899.
Main road maintenance at King's Lynn; Local Government Board arbitration. *Surveyor*, Jan. 27, 1899.
The maintenance of footpaths in Lincolnshire. *Surveyor*, Aug. 11, 1899.
Proposed bridge over the Tyne. *Engineer*, Sept. 15, 1899, *illus.*
Rural main roads in Kent. *Surveyor*, April 21, 1899.
Buckham (E.) Notes on wood pavements in Ipswich. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 25, pp. 155–159. 1899.
U.K. Govt. Bill to amend the provisions of the Highways and Bridges Act, 1891. 1899 (133) v. 185.
Bell (George Joseph) The management of roads by county councils. *Surveyor*, May 25, 1900.
Jeffreys (W. Rees) Maintenance and construction of main roads in England. *Cyclists' Touring Club Gazette*; abstracted in *Automotor and Horseless Vehicle Journal*, Oct. 1900.
U.K. Govt. Bill to amend the law of public health, local government, and rating, with respect to urban district councils, and otherwise. [Including roads and bridges]. 1900 (269) v. 547.
—Bill to amend the provisions of the Highways and Bridges Act, 1891. 1900 (82) ii. 455.
Gloucestershire highways: a twelve years' retrospect. *Surveyor*, June 14, 1901.
Main roads in Warwickshire. *Surveyor*, July 26, 1901.
Management of highways in Worcestershire: report of a special committee. *Surveyor*, June 21 ,1901.

Ruck (F. W.) The main roads of Kent: their maintenance and repair; *with discussion*. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 27, pp. 51–60. 1901.
Gloucestershire main roads dispute: arbitration award. *Surveyor*, May 23, 1902.
Kesteven main road expenditure. *Surveyor*, Jan. 24, 1902.
The laying out of new streets: Ashborne case judgment. *Surveyor*, Dec. 5, 1902, *illus.*
***Bucks: County Council.** Report of Bridge Tolls Committee on the abolition of tolls. Reports, 1900–02.
U.K. Govt. Bill to amend the law for the administration of highways. 1902 (148) ii. 217.
County road management; the contract system condemned. **Municipal Journal*, Oct. 16; *Surveyor*, Oct. 16, 1903.
*England's roadways. *Municipal Journal*, March 20, 1903.
The Kent roads report. *Surveyor*, Nov. 20, 1903.
The laying out of new streets: the Devonport case. *Surveyor*, March 6, 1903.
The repair of bridges: some recent cases. *Surveyor*, July 10, 1903.
Road maintenance in Kent. *Surveyor*, Oct. 23, 1903.
Road restoration indemnity [at New Church, Isle of Wight]. *Surveyor*, April 17, 1903.
Jeffreys (W. Rees). Highway administration in England and Wales at the beginning of the 20th century. 1903.
Kent: County Council. Report by D. Joscelyne on the system of repairing and maintaining main roads in the county of Kent. 1903.
U.K. Govt. Bill to amend the law for the administration of highways. 1903 (137) ii. 17.
Bridge repair. *Surveyor*, Nov. 4, 1904.
Encroachments on footpaths [at Sheringham]. *Surveyor*, May 13, 1904.
Main roads administration in Kent. *Surveyor*, Sept. 2, 1904.
*Paving loans (Hull). *Municipal Journal*, Jan 8, 1904.
Public footpaths (at Cheltenham). *Surveyor*, Aug. 5th, 1904.
Repair of highways adjoining county bridges. *Surveyor*, Aug. 5, 1904.
U.K. Govt. Bill to amend the law relating to highways. 1904 (45) ii. 333.
*—Report of the Departmental Committee appointed by the President of the Local Government Board to inquire into the subject of highways authorities and administration in England and Wales. 1904 [Cd. 1793, 1794] xxiv. 279, 295.
*L.G.B. and councils: a Hornsey paving loan. *Municipal Journal*, Nov. 17, 1905.
The L.G.B. and loans for paving materials; syndicated highways: "too good" roads. *Surveyor*, Nov. 17, 1905.
The new Highways Amendment Bill. *Surveyor*, April 28, Suppl., Aug. 25, 1905.
Proposed highways legislation. *Surveyor*, Jan. 20, 1905.
Road subsidence (at Wednesbury). *Surveyor*, June 23, 1905.
West Lane, Baildon: an opposed improvement. *Surveyor*, Aug. 4, 1905.
West Sussex roads: important enquiry. *Surveyor*, July 28, 1905.
U.K. Govt. Bill to amend the law relating to highways. 1905 (167) ii. 593.

U.K. Govt. Bill to provide for the establishment of a Highway Commission for England and Wales, and for the amendment of the laws relating to highways and bridges in England and Wales, and for other purposes. 1905 (294) ii. 601.
[Introduced by the Hon. A. Stanley, M.P., on behalf of the Roads Improvement Association, Incorporated].

—Return showing, as regards each rural district in England and Wales, the area, population, and number of parishes, whether there are in force any bye-laws with respect to new streets and buildings; and, if so, the scope of such bye-laws. 1905 (272) lxvii. 373.

*A bridge story: Middlesbrough and the proposed Tees Bridge. *Municipal Journal*, May 18, 1906.

Highway subsidence (at Wednesbury). *Surveyor*, Dec. 7, 1906.

*Newcastle bridge-freeing scheme. *Municipal Journal*, Jan. 12, 1906.

The preservation of public footpaths [at Wembley]. *Surveyor*, June 29, 1906.

***Cheshire: County Council.** Resolution of Worcestershire County Council, affirming that cost of repairing main roads should not fall upon locality. Agenda and Reports, Aug., 1906, p. 51.

Gladwell (A.) Highway maintenance and repair (in Eton Rural District). *Surveyor*, Nov. 9, 1906, *illus.*

U.K. Govt. Bill to amend the law relating to public rights of way. 1906 (232) iv. 853.

Kent county council and tar-painting of roads: a test case. *Surveyor*, Oct. 11, 1907.

Main roads maintenance; West Riding figures. *Surveyor*, Jan. 11, 1907.

Survey main road problems. *Surveyor*, May 24, 1907.

Traffic over the Tyne; proposal to construct a second high-level bridge. *Surveyor*, Nov. 8, 1907.

***U.K. Govt.** Bill to amend the law relating to public rights of way. 1907 (138) iv. 11.

*—Bill to amend the law relating to public rights of way. 1907 (156) iv. 15; as amended by Standing Committee A, (242) iv. 19.

*—Report from Standing Committee A, on the Public Rights of Way (No. 2) Bill; with the proceedings of the Committee. 1907 (201) vii. 693.

*Estate and street planning: an outline of the Liverpool Streets and Buildings Bill. *Municipal Journal*, Dec. 11, 1908.

*Tarspraying roads; Local Government Board's surcharge of the cost [at Settle, Yorkshire]. *Municipal Journal*, Oct. 16, 1908.

Phillips (Robert) Road construction and maintenance in Gloucestershire. *Engineering-Contracting*, Dec. 16, 1908.

Szlumper (A. W.) Bridge reconstruction at Richmond. Association of Municipal and County Engineers, Proceedings, Vol. 34, pp. 131–132. 1908.

***U.K. Govt.** Bill to amend the Highways Act, 1835. 1908 (57) ii. 753.

*—Bill to amend the law relating to public rights of way. 1908 (15) iv. 939; as amended by Standing Committee A, (321) iv. 943.

*Report from Standing Committee A, on the Public Rights of Way Bill; with proceedings. 1908 (230) x. 1007.

*Main road maintenance: Derbyshire authorities' grievances. *Municipal Journal*, Jan. 8, 1909.

*New roads for old. [Birmingham to Wolverhampton]. *Municipal Journal*, Oct. 8, 1909, *illus.*, *map*.

***Cheshire: County Council.** Resolutions of Shropshire County Council, urging amendment and codification of highway law; and suggested amendments. Agenda and reports, Nov. 1909, pp. 30–31.

Evans (John H.) Road management and repair [in Hertfordshire]. *Surveyor*, Jan. 22, 1909.

***U.K. Govt.** Bill to amend the law relating to public rights of way. 1909 (263) iv. 623.

***Bedfordshire: County Council.** Report on cost per mile of rural main roads, 1892–1910. Report of Highways and Bridges Committee for 1909, p. 10. 1910.

Bell (George Joseph) Road construction and maintenance in Cumberland. *Engineering News*, Jan. 27, 1910.

Carter (G. E.) Maintenance of rural roads in Hants: *with discussion*. Association of Municipal and County Engineers, Proceedings, Vol. 36, pp. 217–224. 1910.

Thropp (J.) Main roads in Lincolnshire: *with discussion*. Association of Municipal and County Engineers, Proceedings, Vol. 36, pp. 178–197. 1910.

***U.K. Govt.** Bill to amend the Highways Act, 1835. 1910 (115) ii. 193.

*—Bill to amend the aw relating to public rights of way. 1910 (15) iv. 731.

***Encyclopædia Britannica** (11th ed.) Article "England; Local Government," sections "Highways," and "Main roads." 1911.

***Kingston-upon-Hull.** Report of Works Committee upon comparative cost and efficiency of street cleaning by contractors and by direct labour. Minutes, Vol. VI, pp. 31–35. 1911.

***Manchester City Council** Protest by Manchester Chamber of Commerce against clauses in a bill promoted by the Council, giving it power to prescribe routes to be taken by all vehicles. Appendix to minutes, 1910–11, Vol. II, pp. 129–130, 365–367.

Morgan (E. F.) Permanent way and highways at Croydon. Association of Municipal and County Engineers, Proceedings, Vol. 37, pp. 412–426. 1911.

Shuman (J. R.) Our disgraceful paving methods [and England's good methods]. *Yale Scientific Monthly*, Nov. 1911.

***U.K. Govt.** Bill to amend the Highway Act, 1835. 1911 [Commons Bill 24.]

*—Bill to amend the law relating to public rights of way. 1911 (H.L. 15); Amendments (15 a–f); as amended by Select Committee, (107); as amended in Committee, (141).

*—Bill to amend the law relating to rights of way. 1911 [Commons Bill 332].

*—Report from the Select Committee on the Public Rights of Way Bill; with proceedings. 1911 (H.L. 127).

Alleged damage from tarred roads [at Amersham]. *Surveyor*, Aug. 30, 1912.

East Suffolk Roads. *Surveyor*, Aug. 23, 1912.

Herefordshire roads. *Surveyor*, Aug. 9, 1912.

Kent main roads. *Surveyor*, Aug. 30, 1912.

Northamptonshire roads, *Surveyor*, July 12, 1912.

[Notes on street and road construction and maintenance, street widenings, and private streets, in Bridlington]. *Surveyor*, July 5, 1912.

Road maintenance in Warwickshire. *Surveyor*, Aug. 16, 1912.

Some maintenance costs of English roads. *Engineering-Contracting*, Sept. 25, 1912.

Wiltshire roads; matters of engineering. *Surveyor*, Aug. 30, 1912.

***Cardiganshire: County Council.** Report on recent increase in cost of maintenance of rural main roads in different counties, owing to increase in motor traffic. Minutes, May, 1912, pp. 51–53, 69–70.

Jack (G. H.) Road construction and maintenance in Herefordshire. *Surveyor*, Aug. 9, 1912.

Powell (J. George) Road maintenance problems [in Wiltshire]. *Surveyor*, Aug. 23, 1912.

***U.K. Govt.** Bill to amend the Highway Act, 1835. 1912 [Commons Bill 189.]

*—Bill to amend the law relating to public rights of way. 1912 [Commons Bill 15.]

(i.) *Holyhead Roads.*

***U.K. Govt.** Report on the state of the road from Shrewsbury to Holyhead, and the harbour of Holyhead. 1810 (166) iv. 33.

*—Act for granting to His Majesty the sum of £20,000 to be issued and applied towards repairing roads between London and Holyhead by Chester, and between London and Bangor by Shrewsbury. 1815. 55 Geo. III, c. 152.

*—Report of Commissioners, under Act 55 Geo. III, for repairing the roads between London and Holyhead by Chester, and between London and Bangor by Shrewsbury. 1816 (459) viii. 61.

*—Estimate of expense of repairing certain portions of Holyhead Road. 1817 (412) xiii. 381.

*—Bill for vesting in Commissioners the line of road from Chirk, in the county of Denbigh, to Bangor Ferry in the county of Carnarvon, and for discharging the trustees from the future repair and maintenance thereof. 1818 (291) ii. 43.

*—Estimates of the expenses of the Chirk to Bangor Ferry Road. 1818 (337) xv. 293.

*—Bill for vesting in Commissioners the line of road from Shrewsbury in the county of Salop to Bangor Ferry in the county of Carnarvon, and for discharging the trustees under several acts of 17, 28, 36, 41, 42, 47 and 50 Geo. IV, from the future repair and maintenance thereof, and for altering and repealing so much of the said acts as affects the said line of road. 1819 (39) i. A. 181.

*—Act 59 Geo. III, c. 30.

*—Bill to amend an act of 55 Geo. IV, for granting to His Majesty the sum of £20,000 towards repairing roads between London and Holyhead by Chester, and between London and Bangor by Shrewsbury, and for giving additional powers to the Commissioners therein named to build a bridge over the Menai Straits, and to make a new road from Bangor Ferry to Holyhead. 1819 (99) i. A. 233.

*—Act 59 Geo. III, c. 48.

*—Bill for improving the roads between London and Chirk in the county of Denbigh by Coventry, Birmingham, and Shrewsbury. 1820 (221) i. 395.

*—Act 1 Geo. IV, c. 70.

*—Estimate of money wanted for the Chirk to Bangor Ferry Road; likewise for the Caledonian Canal and Holyhead roads. 1820 (194) xi. 149.

—Reports (4) of Mr. Telford on the state of the Holyhead roads, and proposed lines of road, for 1819–20. 1820–23. 1st—1820 (126, 279) vi. 287, vii. 57; 2nd—1821 (574, 575) x. 229; 3rd—1822 (179) vi. 345; 4th—1823 (261) x. 23.

***U.K. Govt.** Reports (6) of Commissioners of Shrewsbury and Bangor Ferry Road, under Act 59 Geo. III, c. 30. 1820–26. 1st—1820 (127) vi. 351; 2nd—1821 (311) x. 257; 3rd—1822 (126) vi. 361; 1823 (151) x. 22; 4th—1824 (157) ix. 281; 5th—1825 (153) xv. 51; 6th—1826 (181) xi. 97.

Continued in—

*—Reports (5) of Commissioners, appointed under Acts 59 Geo. III, c. 30 and c. 48, on Shrewsbury and Holyhead road. 1st—1826–27 (196) vii. 61; 2nd (income and expenditure, 1828, and report of Mr. John Provis on the state of the road)—1829 (109) v. 73; 3rd—1830 (169) xv. 77; 4th—1830–31 (275) iv. 369; 5th—1831–32 (304) xxiii. 597.

And later continued separately as—

*Annual reports of Commissioners of Shrewsbury and Bangor Ferry road, under Act. 59 Geo. III, c. 30. 1833 (124) xvii. 427; 1834 (131) xl. 137; 1835 (85) xxxvi. 331; 1836 (129) xxxvi. 395; 1837 (169) xxxiii. 227; 1837–38 (348) xxxv. 135; 1839 (116) xxix. 587; 1840 (135) xxviii. 487.

*—Bill for further improving the roads between London and Holyhead by Coventry, Birmingham, and Shrewsbury. 1821 (56) i. 37.

*—Act 1 and 2 Geo. IV, c. 30.

*—Estimate of sums wanted for repairing certain portions of Holyhead road. 1821 (633) xvi. 53.

*—Estimate of the sum wanted to enable the Commissioners acting under the Act 55 Geo. III, c. 152, to complete the improvements which remain to be made on the road from London to Holyhead. 1823 (321) xiii. 297.

—Reports of Commissioners, under Act 4 Geo. IV, for improving the road from London to Holyhead. 1824–51.

*1st—1824 (305) ix. 293.
*2nd—1825 (492) xv. 63.
*3rd—1826 (129) xi. 47.
*4th—1826–27 (412) vii. 81.
*5th (including Mr. Telford's report on the state of the roads between London and Holyhead, Menai Bridge, bridge over the Conway, Chester Road, harbours of Howth and Holyhead, and road between Howth and Dublin)—1828 (476) ix. 227.
*6th—1829 (316) v. 103.
*7th—1830 (659) xv. 23.
*8th—1831 (280) xii. 29.
*9th—1831–32 (584) xxiii. 573.
*10th—1833 (739) xvii. 437
*11th—1834 (608) xl. 147.
*12th—1835 (554) xxxvi. 271.
*13th—1836 (437) xxxvi. 403.
*14th—1837 (533) xxxiii. 195.
*15th—1837–38 (716) xxxv. 93.
*16th—1839 (491) xxix. 595.
*17th—1840 (597) xxviii. 465.
*18th—1841 (425) xii. 259.
*19th—1842 (572) xxv. 205.
*20th—1843 (628) xxix. 291.
*21st—1844 (630) xxxi. 273.
*22nd—1845 (616) xxvii. 169.
*23rd—1846 (718) xxiv. 309.
*24th—1847 (604) xxxiii. 325.
*26th—1849 (612) xxvii. 111.
*27th—1850 (753) xxx. 107.
*28th—1851 (652) xxix. 117.

***U.K. Govt.** Accounts of loans advanced by the Commissioners for the issue of Exchequer bills for public works and employment of the poor, to certain trusts in the line of the Holyhead Road. 1827 *et seq.*

1826–27 (310) xx. 565; 1828 (33) xxi. 483; 1829 (151) xxi. 111; 1830 (64) xxvii. 285; 1830–31 (392) xiv. 25.

*—Bill for the further improvement of the road from London to Holyhead and of the road from London to Liverpool. 1827 (222, 401) i. 351, 375.

*—Act 7 and 8 Geo. IV, c. 35.

*—Bill for the further improvement of the road from London to Holyhead, and of the road from London to Liverpool. 1828 (312) i. 653.

*—Act 9 Geo. IV, c. 75.

*—Bill to alter and amend several Acts for the improvement of the roads from London to Holyhead, and from London to Liverpool, and for further improvement of the said roads. 1830 (486) ii. 445.

*—Act 1 Gul. IV, c. 67.

*—Reports (2) from the Select Committee on the Holyhead and Liverpool Road. 1830 (432, 652) x. 131, 183.

*—Report of the Commissioners [of the Holyhead roads] relative to the origin of their commission and their present jurisdiction and duties. 1831 (298) xii. 17.

*—Sums voted and expended on the Holyhead Road; rate of toll on carriages between London and Shrewsbury, and Shrewsbury and Holyhead; sums expended for the construction and maintenance of Howth harbour. 1832 (471) xxvi. 513.

—Estimate of the expense of improvements on the Holyhead Road. 1832–50..

*1831–32 (157) xxvii. 614.
*1833 (165) xxiv. 398.
*1834 (180) xlii. 389.
*1835 (140) xxxviii. 467.
*1836 (156) xxxviii. 367.
*1837 (145) xl. 315.
*1837–38 (310) xxxvii. 327.
*1839 (142–I) xxxi. 624.
*1840 (179–I) xxx. 783.
*1841 (224–I) xiv. 386.
*1841, Sess 2 (14–1) ii. 80.
*1842 (130–I) xxvii. 455.
*1843 (91–I) xxxi. 393.
*1844 (108–I) xxxiii. 500.
*1845 (257–I) xxix. 319.
*1846 (266–I) xxvi. 635.
*1847 (229–I) xxxv. 269.
*1847–48 (327–I) xl. 287;
*1849 (268–I) xxxi. 295.
*1850 (256–I) xxxiv. 295.

*—Bill for transferring to the Commissioners of H.M. Woods and Forests the several powers now vested in the Holyhead Road Commissioners, and for discharging the latter from the future repairs and maintenance of the road, harbours and bridges now under their case and management. 1833 (530) ii. 531.

*—Act 3 and 4 Gul. IV, c. 43.

*—Act amending 59 Geo. III, c. 30, relating to the road from Shrewsbury to Bangor Ferry. 1835. 5 and 6 Gul. IV, c. 21.

*—Bill for further improving the road between London and Holyhead by Coventry, Birmingham and Shrewsbury. 1836 (125) iv. 215.

*—Act 6 and 7 Gul. IV, c. 35.

*—Account of sums paid to the Consolidated Fund, and to the Commissioners for issuing Exchequer Bills for the employment of the poor, and repayment of loans advanced for the improvement of the Holyhead Road. 1839 (188) xxx. 393.

*—Return of the expense incurred in cutting through hills, and similar improvements on the Holyhead line of road. 1839 (243) xxx. 397.

*U.K. Govt. Bill to transfer to the Commissioners of H.M. Woods and Works and other commissioners the several powers now vested in the commissioners for repairing the line of road from Shrewsbury to Bangor Ferry, and to amend the London and Holyhead Roads acts so far as relates to the Dunstable Road 1840 (333) iii. 535.
*—Act 3 and 4 Vict., c. 104.
*—Bill to enable the Commissioners of H.M. Woods and Works to apply certain monies now in their hands towards discharging the incumbrances affecting the Shrewsbury and Holyhead Road. 1845 (451) v. 501.
*—Act 8 and 9 Vict., c. 73.
*—Bill to relieve certain trusts on the Holyhead Road from debts. 1861 (48) ii. 567; amended by Select Committee, (141) ii. 579.
*—Act 24 and 25 Vict., c. 28.
—Bill to transfer parts of the Holyhead Old Harbour Road from the Board of Trade to the Local Board of Health of the town of Holyhead, and for other purposes. 1874 (51) ii. 361.
*—Act 37 and 38 Vict., c. 30.
—Bill to make further provision concerning certain portions of the Shrewsbury and Holyhead Road. 1890 (377) viii. 309.
—Report from the Select Committee on the Shrewsbury and Holyhead turnpike road, with the proceedings. 1899 (224) xvii. 177.
Harper (C. G.). The Holyhead road, the mail coach road to Dublin. 1902. 8vo, 2 vols. 10349.dd.12.

(ii.) *Private Street Works.*

Spinks (William) The law and practice as to paving of private streets according to the Public Health Act, 1875. 1887. 8vo, pp. xxix, 34. 6426.bb.34.
—(3rd ed) 1892. pp. x, 171. 6426.cc.28.
—(4th ed.) 1904.
U.K. Govt. Bill to amend the Public Health Acts in relation to private street improvement expenses. 1892 (224) v. 577; Lords' amendments (443) v. 589.
*—Act 55 and 56 Vict., c. 57.
Laffan (G. B.) The Private Street Works Act, 1892. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 19, pp. 300–311; *Surveyor*, Aug. 10, 1893.
Caink (Thomas) A rapid method of apportioning cost of private street works. *Surveyor*, Feb. 14, 1896, *illus.*
The Private Street Works Act, 1892; its advantages and defects. *Surveyor*, May 6, 1898.
Private street works; jurisdiction of magistrates (in Mansfield). *Surveyor*, June 10, 1898.
The Private Street Works Act, 1892. *Sanitary Record*, Jan. 20, 1899.
"Insufficiency" and "unreasonableness" as objections to private street works. *Surveyor*, Oct. 12, 1900.
Private street works: a doubtful point. *Surveyor*, Oct. 26, 1900.
Private street works: apportionment of expenses. *Surveyor*, Sept. 21, 1900.
Exemption from private street works expenses. *Surveyor*, Feb. 1, 1901.
Private street works and open spaces. *Surveyor*, Feb. 15, 1901.
Private street works expenses as a charge on property. *Surveyor*, Feb. 8, 1901.

Private street works: important judgment by Mr. Rose (Fulham). *Surveyor*, Feb. 8, 1901.
Private street works: the "benefit" principle. *Surveyor*, March 1, 1901.
Private street works and the jurisdiction of magistrates. *Surveyor*, Jan. 17, 1902.
Scholefield (Joshua) and **Hill (Gerard R.)** Private Street Works Act, 1892. 8vo, pp. 161. 6426.c.28.
Private street works and public parks. *Surveyor*, April 17, 1903.
Private street works and railway companies. *Surveyor*, July 24, 1903.
Private street works expenses as between landlord and tenant. *Surveyor*, June 5, 1903.
Private street works: frontagers and notices. *Surveyor*, Feb. 13, 1903.
Private street works: the Wakefield case. *Surveyor*, Feb. 20, 1903.
Private street works charges: property "extra commercium." *Surveyor*, March 11, 1904.
Recovery of private street works expenses. *Surveyor*, March 25, Nov. 11, 1904.
Spinks (W.) Law and practice relating to private street works. 1904. 8vo, pp. 256. 6427.ccc.2.
Private street works expenses. *Surveyor*, July 28, 1905.
Private street works and public pleasure grounds. *Surveyor*, May 10, 1907.
Private street works and the widening of roads. *Surveyor*, May 24, 1907.
Road widening and private street works. *Surveyor*, Dec. 6, 1907.
Roadside waste; private street works and the widening of old roads. *Surveyor*, Jan. 18, 1907.
Boyd (R. H.) Preparation of estimates for private street works. *Sanitary Record*, Dec. 1, 1910.
Fogg (Tom) Private street works as administered under the Heywood Corporation Act, 1883. *Surveyor*, Dec. 23, 1910, *illus.*
Croasdell (W. C.) The law relating to private street works under the Act of 1892. 1911. 8vo, pp. 248.
Conder (J. B. Reignier) Notes on the law of private street works under the Public Health Acts. 1911. 8vo, pp. 128.
Fogg (Tom). Private street works [in Heywood.] *Contractors' Record*, March 8, 1911.
Scholefield (Joshua) and **Hill (Gerard R.)** Paving and sewering of new streets and private streets. 1911 (2nd ed.) 8vo, pp. 284.

LONDON

I. History and Description.

Van den Wyngaerde. View of London. c.1550.
Reproduced by London Topographical Society. Original drawing, which is in the Sutherland Collection in the Bodleian Library, measures 10 ft. by 17 in.; reproduction is in seven sheets.

Höfnagel. Plan of London.
Originally published in Braun and Hogenberg's "Civitates Orbis Terrarum," 1572. Reproduced by London Topographical Society.

Norden (John) Maps of London and Westminster. 1593.
Reprinted by London Topographical Society from the *Speculum Britanniae*, 1593. Commentary by Henry B. Wheatley in *London Topographical Record*, Vol. II, 1899.

Visscher View of London. 1616.
Original is in King's Library, British Museum. Reproduced by London Topographical Society.

Hollar (Wenceslaus) View of London. 1647.
Reproduced by London Topographical Society.

Hollar (Wenceslaus) [Bird's-eye view of] West-Central London. c. 1648.
Reproduced by London Topographical Society; commentary by Prof. W. R. Lethaby and T. Rhys Jenkins in *London Topographical Record*, II.

Faithorne and Newcourt 1658. Map of London.
Reproduced by London Topographical Society from British Museum copy.

Porter (Thomas) Newest and exactest mapp of the most famous cities London and Westminster, with their suburbs; and the manner of their streets. c.1660.
Reproduced by London Topographical Society from copy in Library of Society of Antiquaries.

Hollar (Wenceslaus) Exact surveigh of the streets, lanes, and churches contained within the ruines of the City of London. 1667.
Reproduced by London Topographical Society.

Ogilby (John) London survey'd, or an explanation of the large map of London. Giving a particular account of the streets and lanes in the City and Liberties, etc. 1677. Fol.

Burton (Richard) [*i.e.* **Nathaniel Crouch**] Historical remarques and observations of the ancient and present state of London and Westminster . . . with an account of the most remarkable accidents . . . and occurrences . . . till the year 1681. . . . 1681. 12mo., 2 parts. 291.a.43.

—3rd ed.) 1684. 12mo. 577.a.8. (2).

—(New ed.) 1810. 4to. 190.b.3.

—(Another ed.) 1730. "A new view and observations on the ancient and present state of London and Westminster . . . by Robert [*i.e.* Richard] Burton. . . . Continued by an able hand. 12mo. 578.b.5.

Morden (Robert) and **Lea** Map of London. 1682.
Scale 300 ft. to 1 in. Reproduced by London Topographical Society; commentary by Walter L. Spiers in *London Topographical Record*, V.

Hatton (Edward) A new view of London, or an ample account of that city. 1708. 8vo, 2 vols., *illus.*, *maps*. 2065.a.

—(Supplement.) 1722. 290.a.26. (2).

Kip. View of the City of London, Westminster, and St. James's Park. [in 12 sheets.] 1710.
Reproduced by London Topographical Society.

Burridge (Richard) A new review of London: being an exact survey . . . of every street, lane, court . . . and all places . . . within the Cities . . . or suburbs of London, Westminster, and the Borough of Southwark . . . With the rates of domestick and foreign letters. 1722. 8vo. 10349.bb.

—(3rd ed.) 1728. 8vo. 1302.a.5

Leake (John) An exact surveigh of the streets, lanes, and churches comprehended within the ruins of the City of London. 1723. Fol. 3. Table 24. (21).

[Advertisement respecting a passage between Bloomsbury Square and King Street.] 1730. S.sh. fol. 816.m.9. (79)

Alphabetical index of the streets, squares, lanes, alleys, etc., contained in the Plan of the cities of London, Westminster, and Borough of Southwark, engraved by J. Pine . . . from an actual survey made by J. Roque. 1747. 4to. 186.a.4.

*Essay on the many advantages accruing to the community from the superior neatness, conveniencies, decorations and embellishments of great and capital cities, particularly apply'd to the City and suburbs of London, the renowned capital of the British Empire. Addressed to Sir John Barnard, Knt., senior Alderman and senior Representative in Parliament of the said city. 1754. 8vo, pp. vi, 49.

Gwynn (John) London and Westminster improved, illustrated by plans. . . . 1766. 4to. 191.a.19.

London and Westminster guide, through the cities and suburbs . . . To which is added an alphabetical list of all the streets, etc. 1768. 12mo, pp. xxxiii, 161 and 80. 10349.bb.41.

Stuart (James) Critical observations on the buildings and improvements of London. 1771. 8vo, pp. 69.

*—(2nd ed.) 1771. 105.e.40.

Ambulator; or, the stranger's companion in a tour round London; to which is prefixed a concise account of London, Southwark, and Westminster. 1774. 12mo, pp. xxii, 223. 10350.bbb.14.

—(2nd ed.) 1782. 10350.aaa.30.

—(3rd ed.) 1787. 578.b.12.

—(5th ed.) 1793. 578.b.13.

—(6th ed.) 1793. 10351.c.36.

—(8th ed.) 1796. 578.b.14.

—(9th ed.) 1800. 10349.bb.16.

—(3rd ed. revised.) 1807. 10351.c.35.

—(11th ed.) 1811. pp. 310. 10349.b.27.

—(12th ed.) 1820. 2 parts. 10351.c.37.

—(Another ed.) 1825. pp. 351. 578.a.28.

Bowles (Carington) Bowles's New London guide: being an alphabetical index to all the streets . . and public buildings . . . in and within 5 miles of the metropolis. 1786? 8vo. 10349bbb.35.

—Bowles's new London guide and hackney coach directory . . . 1786. 8vo. 577.d.11.

Lysons (Daniel) The environs of London: being an historical account of the towns, villages, and hamlets, within 12 miles of that capital . . . . 1792–96. 4to, 4 vols., *illus.* 2065.e.

—(2nd ed.) 1810–11. 2 vols. 577.i. 24–27.

Middlesex, parts 1–2, in B.L.P.S.

Kearsley (George and C.) Kearsley's stranger's guide or companion through London and Westminster, and the country round . . . within the circuit of 14 miles, together with a map. . . . 1793. (?) 12mo. 578.b.15 (wanting map and plan.)

Clarke (Charles) Observations on the intended Tunnel beneath the River Thames. Gravesend, 1799. 4to. 101.i.56.

Cary (John) Cary's new guide for ascertaining hackney coach fares and porterage rates, being an actual admeasurement of every street which is a carriage way throughout the metropolis. 1801. 8vo. 796.g.26.

Carey (William) The stranger's guide through London; or, a view of the British metropolis in 1808. 1808. 12mo. 10349.aa.5.

Lockie (John) Lockie's topography of London, giving a concise local description of . . . every square, street, lane . . . dock . . . wharf . . . public office, in the metropolis and its environs. The whole alphabetically arranged. 1810. 4to. 577.d.12.

—(2nd ed.) 1816. 12mo. 10349.bbb.3.

Kensington Turnpike Trust Plans [of the road from Hyde Park Corner to Counter's Bridge.] 1811. 15 sheets, each 45 in. by 24 in. Scale 1 in. to 20 ft.

Reprinted in 30 sections by London Topographical Society. 1900 *et seq.* For commentary see *London Topographical Record*, Vol. III, notes by Col. W. F. Prideaux.

Langley and Belch (W.) Langley and Belch's companion to their new map of London on an entire new plan, from actual survey, forming a guide to the streets, etc. 1813. (?) 12mo. 578.a.30.

Some account of the proposed improvements of the western part of London, by the formation of the Regent's Park, the new street, the new sewer. . . . Illustrated by plans and accompanied by critical observations. 1814. 8vo. 10350.cc.4.

Thames Tunnel Company The Thames Tunnel Company, incorporated by Act, 5 Geo. IV. Dated 24th June, 1824. [Being a list of the officers of the company.] (A new plan of tunnelling, calculated for opening a roadway under the Thames, by M. I. Brunel.) 1824. 8vo., *plates.* 577 c.30.

The Thames Tunnel, incorporated by Act, 5 Geo. IV, dated June 24, 1824. 1825. 8vo. 577.c.29.

French (Sir F. W.) Prospectus of the proposed improvement on the banks of the Thames [to be carried into effect by a public company. Dated Feb. 3rd, 1825.] 1825. Obl. 4to, *plates.* 577.h.13.

—(Another ed.) Without plates. Fol. 8223.a.10. (124).

Descrizione con tavole rappresentani i ponti sul Taro e sulla Trebbia . . . . la galleria o strada sotto il Tamigi. . . . Milano. 1826. 8vo. 899.d.9. (3).

Wellbeloved (Horace) [Henry H. Wellbeloved] London lions for country cousins. . . . A display of metropolitan improvements, the new streets, new bridges, new churches, etc. 2nd ed. 1826 (?). 8vo. 10348.c.

The origin, progress, and present state of the Thames Tunnel and the advantages likely to accrue from it. 1827. 4th ed. 8vo. T.1173. (15).

—(5th ed.) 1827. pp. 28. 10358.g.35. (1).

Thames Tunnel Company. Report of the Court of Directors and of M. I. Brunel . . . upon the state of the works. 1828. 8vo, pp. 16. Pam. 79

Documents relating to the Thames Tunnel. 1829. 8vo. 8776.c.43. (1).

Adrian (Johann Valentin) Neuestes Gemälde von London und seinen Umgebungen. Handbuch für Reisende nach London . . . Mit einem Wegweiser von Frankfurt-am-Main. . . nach London . . . Frankfurt-a-M. 1829. 8vo, pp. xx, 437. 10350.bbb.15.

A plan of the Intended Turnpike Road from Saint Marylebone into the Great North Road. (*Prospectus and Map*) 1830. 1210 (6).

Sketches of the works for the Tunnel under the Thames from Rotherhithe to Wapping. 1830. obl. 8vo. 10349.a.27.

The Thames Tunnel. [Description and illustrations.] 1835. *Thames Tunnel Office.* S. sh. fol. 1810.d.1. (44).

An explanation of the works of the Tunnel under the Thames. 1836. obl. 8vo. *plans, sections.* 8766.b.4.

The Thames Tunnel. 1836. S. sh. fol. 10026.d.27. (14).

***U.K. Govt.** Number of waggons, cabs and carts, horse-carriages, cattle and foot-passengers, coming into and going out of London, in the week ending 8th March, 1833. 1836 (418 Appx.) xx. 89.

The Thames Tunnel. [Account of the enterprise, with illustrations.] 1839. S. sh. fol. 1882.c.2. (84).

French (Sir Frederick) Letter to the Viscount Duncannon, First Commissioner of Woods and Forests [on a scheme for the Thames Embankment]. 1841. 4to, pp. 12, *plates.*

Thames Tunnel Company. [Description of the works, beginning "Thames Tunnel is open daily."] 1842. S. sh. fol. 1752.c.1. (160).

The Thames Tunnel; its origin, progress, and completion. 1843. 8vo, pp. 16. 1396.c.21.

Thames Tunnel Paper, printed . . . 76 feet below high-water mark, to commemorate the day of opening the Tunnel as a thoroughfare for foot passengers, March 25, 1843. S. sh. fol. 1298.m.11. (3).

Collection of miscellaneous documents relating to the Thames Tunnel, comprising the Acts of Parliament, reports, news, manuscript letters, etc.] 1843 (?). Fol. 8776.g.

***Mogg (Edward)** Omnibus guide and metropolitan carriage time table and hackney coach and cab fares. 1844. 16mo, pp. *irreg*; *maps.*

Description des travaux entrepris pour la construction de la Tonnelle, ou passage sous la Tamise entre Rotherhithe et Wapping. 1846. Obl. 12mo, pp. 23, *plates.* 10352.a.11.

The origin, progress and completion of the Thames Tunnel. 1847. 16mo, pp. 15. 1396.a.9.

London, City of: *Commissioners of Sewers.* Reports, Vol. III. [Subway crossing at Ludgate Hill; bridges and subways across carriage-ways; traffic and improvements in public ways.] 1849–66.

The Thames Tunnel; its origin, history and construction. 1854. 8vo. 10350.a.48.

Baedeker (Carl) London und seine Umgebung, nebst Reiserouten vom Continent nach England. Coblenz. 1862. 8vo. 10350.aa.

—(2nd ed.) 1866. Nebst Ausflügen nach Süd-England, Wales u. Schottland. (10350.aa); French ed. of same date. 10349.aa.

—(5th ed.) 1875. Leipzig. 10350.aa.3.

—(7th ed.) (Strassen-Verzeichniss und Pläne von London). 2 parts 1881. 10108.c.8.

—(3rd English ed.) 1881. 10108.c.9.

*—(4th English ed.) 1883.

Bird's-eye view of the Thames Embankment, showing the probable approaches. 1865. S. sh. fol. 1753.d.4.(71).

London Topographical Society Publications. 1880 *et seq.*

I—Van den Wyngaerde's View of London, c.1550.
II—Hoefnagel's Plan of London, c. 1560.
III—Illustrated Topographical Record, 1st series.
IV—Visscher's View of London, 1616.
V—Porter's "Newest and exactest mapp of . . . London and Westminster. . ." c. 1660.
VI—Illustrated Topographical Record, 2nd series.
VII—Norden's Map of London, and Norden's Map of Westminster, 1593.
VIII—Kensington Turnpike Trust Plans, 1811.
IX—Illustrated Topographical Record, 3rd series.
X—Comparative plan of Whitehall, 1880–1896.
XI—Annual Record. I.
XII—West Central London, c. 1648.
XIII—London Topographical Record. II.
XIV—Kip's View of the City of London. . . 1710.
XV—Morden and Lea's Map of London, 1621.
XVI—London Topographical Record. III.
XVII—Map of London . . . attributed to Ralph Agas.
XVIII—Faithorne and Newcourt's Map of London, 1658.
XIX—Hollar's View of London, 1647.
XX—London Topographical Record. IV.
XXI—Wren's drawings of Old St. Paul's.
XXII—Hollar's "Exact Surveigh of . . . London," 1667.
XXIII—London Topographical Record. V.
XXIV—View of Whitehall from the river, 1683.
XXV—London Topographical Record. VI.

London: *Metropolitan Board of Works.* Return of alterations in street nomenclature and numbering since 1856. 1882. 8vo, pp. ix, 338. 10349.ff.26.

Highways and travel in London. *Engineering News*, Dec. 1, 1883.

Evans (H.) London rambler and footpath guide. 1884. 8vo, pp. 89. 10350.bbb.28.

De Lisle (E.) The Majesty of London. Proposed street improvements. 1885. 8vo, pp. 31. 10347.g.5. (2).

Woodward (William) London remodelled: *with discussion.* Surveyor's Institution, Transactions, Vol. 20, pp. 217–290, *plans.* 1886.

The London and Southwark subway under the Thames. *Engineering News*, April 2; *Scientific American Supplement*, Dec. 31, 1887.

London: *County Council.* Names of streets and places in London, with postal districts, localities, etc. No. 76. 8vo, pp. 594. 10349.bbb.34.

—1st supplemental return of alterations, 1882–90. No. 79.
—2nd ,, ,, ,, ,, 1891. No. 77.
—3rd ,, ,, ,, ,, 1892. No. 78.
—4th ,, ,, ,, ,, 1893. No. 144.
—5th ,, ,, ,, ,, 1894. No. 221.
—6th ,, ,, ,, ,, 1895. No. 270.
—7th ,, ,, ,, ,, 1896. No. 322.
—8th ,, ,, ,, ,, 1897. No. 369.
—9th ,, ,, ,, ,, 1898. No. 411.
—10th ,, ,, ,, ,, 1899. No. 465.

L.C.C. Names of streets.
*—(New ed.) With introduction by G. L. Gomme, on the historical significance of street names. 1900. No. 542.
*—1st supplement, 1901. No. 566.
*—2nd ,, 1902. No. 618.
*—3rd ,, 1903. No. 698.
*—4th ,, 1904. No. 869.
*—5th ,, 1905. No. 941.
*—6th ,, 1906. No. 1045.
*—7th ,, 1907–8. No. 1154.
*—8th ,, 1905–08. No. 1242.

Adams (William Henry Davenport) A book about London streets. 1890. 8vo, pp. viii, 224. 10349.d.17.

***Lawson (H. L. W.)** London street improvements. *New Review*, Oct. 1890.

Roberts (Morley) Article on London streets. *Murray's Magazine* December, 1890.

***Waterhouse (Alfred)** Article on London street improvements. *New Review*, October, 1890.

Pearce (E. K.) Some London streets. *Gentleman's Magazine*, September 1891.

The Blackwall highway under the Thames. *Engineering News*, June 16, 1892, *illus.*

Blackwall Tunnel. *Engineer*, March 18, *illus.*; *Engineering Record*, May 28, 1892. *illus.*

***Harrison (Frederick)** London improvements. *New Review*, Oct. 1892.

***Horne (H. P.)** The Strand improvements. *Fortnightly Review*, September 1892.

Thames Tunnel at Blackwall. *Engineer*, Jan. 4 *et seq.* *Engineering Record*, March 23; *Scientific American Supplement*, Aug. 24, 1895.

Characteristics of some great London thoroughfares. *Architect*, Jan. 1, 1897.

The proposed Highgate Archway. *Surveyor*, Sept. 3, 1897.

Two big street improvements. *London*, Aug. 12, 1897.

London improvements. *Illustrated Carpenter and Builder*, July 1, 1898.

London streets and the traffic. *Engineering*, Nov. 18, 1898.

Metropolitan improvements [Aldwych—Kingsway]. *Surveyor*, Dec. 30, 1898.

Westminster improvement scheme. *Builder*, Jan. 29, 1898.

***London**: *County Council.* History of London street improvements, 1855–1897. By Percy J. Edwards, Clerk of the Improvements Committee. No. 380. 1898. 8vo, pp. 307. 2 *maps*, 35 *plans*. 10351.i.22.

***Warren (E. P.)** The Westminster improvement scheme. *Fortnightly Review*, March 1898.

Another Thames tunnel [Rotherhithe—Shadwell]. *Surveyor*, March 24, 1899.

*The great London improvement. *Municipal Journal*, Dec. 22, 1899.

New City thoroughfare [Lloyd's Avenue]. *Surveyor*, Nov. 17, 1899.

The proposed Rotherhithe tunnel. *Surveyor*, May 12, 1899.

*Shaping the new London. *Municipal Journal*, Oct. 13, 1899.

The Strand improvement. *Engineer*, July 7, 1899. *Illus.*

*Widening the Strand. *Municipal Journal*, Dec. 1, 1899.

Lefevre (The Rt. Hon. G. Shaw: afterwards Viscount Eversley) London street improvements. *Contemporary Review*, February 1899.

Macartney (Mervyn) From Holborn to the Strand: an ideal street. *Architectural Review*, Dec. 1899. *Plan.*

Pasquet (D.) Le développement de Londres. *Annales de Géographie*, Jan. 15, 1899.

Williams (P. H. Oakley) Street traffic; the burden of London. *Macmillan's Magazine*, January, 1899.

***Blair (W. Nisbet)** London streets. *Municipal Journal*, March 30, 1900.

Inglis (Harry R. G.) Contour road book of London district. 1900. Also 2-volume edition.

London (City of) Report on the number of persons using the Mansion House subways. 1900. Fol.

*Beneath the Thames: London's new foot tunnel between Poplar and Greenwich. *Municipal Journal*, May 31, 1901.

Proposed widening of Piccadilly. *Surveyor*, Oct. 18, 1901.

Blashill (Thomas) The state of London streets. *Sanitary Institute Journal*, April; *Builder*, Feb. 23, 1901.

*New tunnel under the Thames [Greenwich–Millwall]. *Municipal Journal*, Aug. 1, 1902, *map*, *illus*.

The proposed bridge over the Strand (at Wellington Street). *Surveyor*, November 21, 1902.

Widened Piccadilly. *Surveyor*, May 9, 1902.

Harper (C. G.) Cycle rides round London. 1902. 8vo, pp. 288. 10349.d.33.

***London:** *County Council* The new subway for foot passengers between Millwall and Greenwich. 1902. 4to, pp. 24.

*"Kingsway" and "Aldwych": a bit of new London. *Municipal Journal*, Feb. 13, 1903, *map*.

London street improvements. *Surveyor*, Oct. 23, 1903.

London traffic and boulevards. *Surveyor*, Nov. 13, 1903.

Metropolitan street improvements. *Surveyor*, March 20, 1903.

The Millwall and Greenwich Subway. *Surveyor*, Jan. 2, 1903.

The new Strand. *Surveyor*, Oct. 23, 30, 1903, *illus*.

The Strand improvement: progress of the work at Kingsway. *Surveyor*, Jan. 23, 1903.

Strand improvements. *Surveyor*, May 8, 1903, *sketch map*.

*London re-planned: the transit problem . . . solved by . . . re-arrangement . . . involving the constructing of double-decked streets . . . *Municipal Journal*, April 15, 1904, *map*, *diagrams*.

Blashill (Thomas) London streets and street traffic: *with discussion*. Surveyors' Institution, Transactions, Vol. 36, pp. 309–374, *map*. 1904.

***Harper (Edgar J.)** Statistics of London traffic. *Royal Statistical Society's Journal*, Vol. 67, pp. 177–227. 1904.

Meik (C. S.) and **Beer (Walter)** Proposed London main avenues. 1904. Fol.

*Kingsway and Aldwych (account of opening). *Municipal Journal*, Oct. 20, 1905, *illus*.

London street widening (Piccadilly). *Surveyor*, Oct. 13, 1905.

London's new streets: opening of Kingsway and Aldwych. *Surveyor*, Oct. 20, 1905, *plan*.

The Marble Arch: a proposed improvement. *Surveyor*, July 7, 1905.

Strand improvement plans: suggested modifications. *Surveyor*, Jan. 6, 1905.

***London:** *County Council*. The opening of Kingsway and Aldwych by H.M. the King . . . on . . . Oct. 18, 1905. No. 917. 1905. Fol. *Plans and illus*.

Montagu (J. S.) The best ways out of London. [Car Library.] 1905. 8vo, pp. 79. 08767.de.

Smith (Henry) The streets of London. *Blackwood's Magazine*, Nov., 1905.
***Swinton (S. C.)** The traffic of London. *Nineteenth Century*, Sept., 1905.
The Arch in the Mall. *Surveyor*, Aug. 24, 1906.
Rotherhithe Tunnel. *Surveyor*, Sept. 21, 1906.
Woodward (William) The means of locomotion and transport in London: *with discussion.* Surveyors' Institution, Transactions, Vol. 38, pp. 261–340. 1906.
Blumenfeld (R. D.) The streets of London. *Outlook*, Dec. 28, 1907.
Cook (Mrs. E. T.) Highways and byways in London. Illustrated by Hugh Thomson and Frederick L. Griggs. 1907.
*Marble Arch improvement. *Municipal Journal*, Jan. 24, 1908, *illus.*
New London tunnel: north and south linked up at Rotherhithe. *Municipal Journal*, June 19, 1908, *illus.*
*A circular road for London. *Royal Automobile Club Journal*, Feb. 17, 1910.
London traffic. *Civil Engineering*, Vol. IV. 1910.
The roads of Greater London. *Engineering*, Feb. 17, 1911, *map.*
The traffic problem in London. *Scientific American*, April 29, 1911, *maps.*
Smith (R. A.) A new view of Roman London. *Scientific American*, Aug. 26, 1911, *maps.*
Cycling road book and guide to the environs of London. Vol. I: South of the Thames. 1912. 12mo.
A proposed [City of] London improvement. *Surveyor*, Aug. 23, 1912.
Thames new Subway [at Woolwich]. *Surveyor*, Aug. 30, 1912.

2. Administration.

***England: Govt.** Act for paving the street-way between Strand-Cross and Charing-Cross. 24 Hen. VIII, c. 11. 1532.
*—Act for paving of Holbourn. 25 Hen. VIII, c. 8. 1533.
*—Act for paving of Aldgate, High Holbourn, Chancery-Lane, Gray's-Inn-Lane, Shoe-Lane, Fetter-Lane, etc. 32 Hen. VIII, c. 17. 1540.
*—Act for paving of certain lanes and streets in London and Westminster. 34 and 35 Hen. VIII, c. 12. 1542.
*—Act for paving of a street without Aldgate. 13 Eliz., c. 23. 1570.
*—Act for an addition to a former Act, of 13 Eliz., for the paving of a street without Aldgate, leading to Her Highness' store-houses at the Minories, and other places. 23 Eliz., c. 12. 1580.
*—Act for the paving of Drury-Lane and the town of St. Giles's-in-the-Fields, in the county of Middlesex. 1605. 3 Jac. I, c. 22.
London: *Court of Common Council.* [Order relative to the rebuilding of the city.] 1666. S.sh.fol. 21.h.5.(37).
—Order relative to the rebuilding of the city, and declaring what shall be deemed high streets or lanes, etc. S.sh.fol. 21.h.5.(38).
—Act declaring what streets within the City . . . burnt down in the late . . . fire, shall be enlarged, etc. 1667. S.sh.fol. 21.h.5.(39).
—Order relative to the rebuilding of the City, dated April 29th. 1667. S.sh.fol. 816.m.9.(17).
—Confirmation of the order for the laying new foundations, and for widening the streets of London, after the Great Fire.
Reprinted in Birch's "Historical Charters . . . of the City of London." pp. 231–234.
London: *Commissioners of Sewers.* Orders respecting pavements, etc. 1670. S.sh.fol. 816.m.9.(15).

London: *Court of Common Council.* Act for paving, cleansing, and for preventing nuisances in the streets of London and the liberties thereof. 27th Oct., 1671. 1671.
Reprinted in Birch's "Historical Charters . . . of the City of London," pp. 235–250.

—Act, together with certain orders . . . touching the paving and cleansing the streets, lanes, and common passages within the City of London. 1672. 12mo. 796.d.56; T.858.(3); 101.h.34.

London: *Commissioners of Sewers.* Order relative to the deficient paving of the city. 1673. Fol. 21.h.5.(67).

London: *Court of Common Council.* Order in reference to the paving and cleansing of the city, March 27, 1688. 1851.b.(13).

Considerations humbly offered to the Honourable the Knights, Citizens and Burgesses in Parliament assembled, shewing the necessity . . . of an Act of Parliament . . . for . . . paving and cleansing the streets . . . of London and Westminster and suburbs and liberties thereof. 1700 (?) S.sh.fol. 1888.c.11.(55).

Bermondsey: *Parish of St. Mary Magdalen.* The case of the parish of St. Mary Magdalen, Bermondsey [concerning highway rates]. 1720 (?) S.sh.fol. 1855.c.4.(64).

London: *Commissioners of Sewers.* Order respecting the width of foot pavements. 1740 [?) S.sh. fol. 816.l.5.(15).

Proposal for the better paving, cleansing and lighting the streets of the City and liberty of Westminster, precinct of the Savoy, and that part of the Duchy of Lancaster adjoining. 1751 (?) Fol. 357.d.7.(81).

Reasons for the petition for better paving, cleansing, and lighting the streets of Westminster. 1753 (?) Fol. 213.i.2.(53).

Reasons humbly offered to the consideration of Parliament, in support of the Bill for making a new cross-road from Paddington to Islington, according to the plan. 1756 (?) Fol., 2 *plans.* 358.b.1.(56).

Observations on the Bill for paving, cleansing, lighting, and regulating the squares, etc., within the City and liberty of Westminster. 1765. Fol. 214.i.1.(101).

Queries against the intended daily toll for paving the streets of Westminster. 1766 (?) Fol. 213.i.5.(100).

Clauses proposed for the New Paving [London] Bill, 1769. 1769. Fol. 214.i.4.(107).

Considerations on the New Paving [London] Bill. 1769. Fol. 214.i.4.(100).

Observations upon the Considerations on the New Paving [London] Bill. 1769. Fol. 214.i.4.(98).

Westminster: *United Parishes of St. Margaret and St. John the Evangelist.* Observations on a bill for paving, cleansing, etc., the City and liberty of Westminster. 1769. S.sh.fol. 214.i.4.(99).

Whitworth (Sir Charles) Observations on the new Westminster Paving Act, setting forth the appointment and business of the commissioners and committees. 1771. 8vo. 101.i.23.

Bethnal Green: *Parish of St. Matthew.* Trustees for widening a road from the east side of the parish . . to Church Street. The case of the trustees for putting into execution two acts. The one . . . for making and widening a road from the east side of the Parish . . . to the east end of Church Street . . . The other . . . to enlarge the term and powers of the former act, etc. 1774. Fol. 215.i.4.(107).

***U.K. Govt.** Report on the progress of the improvements in Westminster. 1809 (272) iii. 407.

*U.K. Govt. Reports on the progress of the improvements in Westminster. 1810 (155, 170) ii. 131, 135, 155.

*—Bill for making a more convenient communication from the northern parts of the metropolis, in the parish of Mary-le-bone, to Charing Cross . . . 1813 (156, 261) i. 557, 591.

*—Act 53 Geo. III, c. 121.

*U.K. Govt. Act for further amending and enlarging the powers of an Act of 49 Geo. IV, intituled "An act for consolidating and rendering more effectual the several acts for the purchase of buildings and further improvement of the streets and places near to Westminster Hall . . .," and for other purposes. 1814. 54 Geo. III, c. 154.

*—Bill to amend the acts regulating land revenue, and also an act . . . for making a more convenient communication from Mary-le-bone Park and the northern parts of the metropolis, to Charing Cross. 1814 (52, 132) i. 249, 269.

—Estimate of the sum that may be wanted for carrying into effect the acts for the improvement of Westminster. 1814 (39) xi 173.

*U.K. Govt. Bill for the better paving the streets of the metropolis. 1815 (175) i. 231.

*—Estimate of the sum that may be wanted for carrying into effect acts for the improvement of Westminster. 1815 (371) ix. 222.

*—Bill for the better paving the streets of the metropolis. 1816 (433) ii. 629.

*—Bill to amend two acts of 53 Geo. III, for opening a more convenient communication from Mary-le-bone Park to Charing Cross, and for paving the streets to be made in Mary-le-bone Park, and to enable His Majesty to grant small portions of land as sites for public buildings, or to be used as cemeteries, within the Bills of Mortality. 1816 (334) i. 327.

*—Act 56 Geo. III, c. 128.

*U.K. Govt. Act to enable the Commissioners of H.M. Woods, Forests, and Land Revenues to make and maintain a road from Millbank Row, Westminster, to the Penitentiary. 1817. 57 Geo. III, c. 54.

*—Bill for better paving, improving and regulating the streets of the metropolis. 1817 (180) i. 373.

*—Act 57 Geo. III, c. 29.

—[Reprinted.] 1839. 8vo, pp. 208. 6425.c.10.(2).

*—Bill to alter an act of 54 Geo. III, containing the land revenues appropriated to the making of a new street between Mary-le-bone Park and Charing Cross. 1817 (150) i. 195.

*—Report on petition respecting Mary-le-bone New Street. 1817 (79) iii. 83.

*U.K. Govt. Act to enlarge the term and powers for carrying the New Street Act into execution, and to extend the provisions of an act for ratifying an agreement made with Lord Gage, and for the better management and improvement of the land revenues of the Crown. 1820. 1 Geo. IV, c. 71.

*—Bill for vesting in commissioners the line of roads in the neighbourhood of the metropolis, and for discharging the trustees from the further care and maintenance thereof. 1820 (186) i. 305.

*—Bill for vesting in general and division trustees the line of roads in the neighbourhood of the metropolis, and for discharging the trustees from the further care and maintenance thereof. 1821 (133, 249, 491) i. 173, 217, 247.

*—Bill to amend the acts respecting Westminster improvements. 1821 (430) ii. 685.

*—Estimate of sums wanted for the new street leading to Charing Cross. 1821 (344) xvi. 29.

Highgate and Hampstead Roads, *Trustees.* Copy of the clauses in the General Turnpike Act, Aug. 6th, 1822 (3 Geo. IV, c. 126), relating to the qualification of trustees, with counsel's opinion thereon. 1822. S.sh. fol. 6426.aa.18.(3).

***U.K. Govt.** Act for enabling the Commissioners of H.M. Woods, Forests, and Land Revenues to effect improvements in the neighbourhood of Parliament Street and Privy Gardens, within the liberty of Westminster. 1822. 3 Geo. IV, c. 58.

***U.K. Govt.** Bill for paving, lighting, watching, cleansing, and regulating the Regent's Park, together with the New Street from thence to Pall Mall, and the streets and improvements in the neighbourhood of Parliament Street and Privy Garden. 1824 (229) ii. 613.

***U.K. Govt.** Bill for extending the jurisdiction of the Commissioners for paving and regulating the Regent's Park, together with the New Street from thence to Pall Mall, and for other purposes relating thereto. 1825 (179) iii. 291.

*—Act 6 Geo. IV, c. 38.

*—Report from the Select Committee on the receipts, expenditure, and management of the turnpike trusts within ten miles of London. 1825 (355) v. 167.

*—Return of sums collected and disbursed in each parish for lighting, watching, and paving the metropolis. 1825 (240) xx. 59.

Metropolitan Turnpike Act. The Statute 7 Geo. IV, c. 142, for consolidating the trusts of the turnpike roads in the neighbourhood of the metropolis north of the Thames. With notes . . . by the editor of the General Turnpike Acts. 1826. 12mo, pp. xv, 200. 517.b.31.

***U.K. Govt.** Bill to extend to Charing Cross, the Strand, and places adjacent, the powers of an act for making a more convenient communication from Mary-le-bone Park, and to enable the Commissioners of Land Revenues to grant leases of the site of Carlton Palace. 1826 (208) i. 597.

*—Act 7 Geo. IV, c. 77.

*—Bill to vest in the Commissioners of H.M. Woods and Forests the powers of several acts for the improvement of the streets near Westminster Hall and the Houses of Parliament, and to authorize the conversion of the pavements in several parts of the Metropolis into broken stone roads. 1826 (359) ii. 155.

*—Act 7 Geo. IV, c. 78.

*—Bill for consolidating the trusts of the several turnpike roads in the neighbourhood of the metropolis, north of the River Thames. 1826 (160, 275) i. 103, 223.

*—Estimate of the sums wanted for carrying into effect acts for the improvement of Westminster, 1821–26. 1826 (135) xx. 135.

*—Reports on the progress of the improvements in Westminster. 1826 (243) xxi. 11.

***U.K. Govt.** Treasury minute, dated Jan. 19th, 1827, on the subject of the improvements in St. James's Park, with a plan of the proposed alterations. 1827 (522) xx. 697.

—Reports of Commissioners appointed under Act 7 Geo. IV, c. 142, on the roads north of the River Thames. 1827 *et seq.*

*1st—1826–27 (339) vii.23.
*2nd—1828 (311) ix. 23.
*3rd—1829 (219) v.21.
*4th—1830 (362) xv. 135.
*5th—1831 (41) xii 1.
*6th—1831–32 (449) xxiii. 541.
*7th—1834 (237) xl. 211.
*8th—1834 (238) xl. 223.
*9th—1835 (208) xxxvi. 319.
*10th—1836 (316) xxxvi. 383.
*11th—1837 (305) xxxiii. 213.
*12th—1837–38 (387) xxxv. 125.
*13th—1839 (348) xxix. 577.
*14th—1840 (279) xxviii. 455.

*15th—1841 (327) xii. 249.
*16th—1842 (388) xxv. 219.
*17th—1843 (263) xxix. 305.
*18th—1844 (277) xxxi. 287.
*19th—1845 (329) xxvii. 181.
*20th—1846 (540) xxiv 375..
*21st—1847 (410) xxxiii. 347.
*22nd—1847–48 (331) xxxvii. 1.
*23rd—1849 (286) xxxvii. 265.
*24th—1850 (290) xxx. 247.
*25th—1851 (289) xxix. 279.
*26th—1852 (492) xviii. 579.
*27th—1852–53 (506) xl. 751.
*28th—1854 (287) xix. 561.
*29th—1854–55 (267) xv. 545.
*30th—1856 (172) xviii. 539.
*31st—1857 (50 Sess. 2) xvi. 341.
*32nd—1857–58 (238) xxxii. 403.
*33rd—1859 (19 Sess. 2) xi. 173.
*34th—1860 (333) xxxi. 497.
*35th—1861 (269) xxxiii. 115.
*36th—1862 (235) xxviii. 307.
*37th—1863 (186) xxviii. 311.
*38th—1864 (244) xxxi. 211.
*39th—1865 (290) xxix. 127.
40th—1866 (78) xx. 113.
41st—1867 (102) xlx. 313.
42nd—1867–68 (117) xxi. 431.
43rd—1868–69 (67) xvii. 537.
44th—1870 (89) xvii. 419.
45th—1871 (63) xvi. 393.
46th—1872 (50) xviii. 607.

***U.K. Govt.** Bill to alter and enlarge the powers of an act passed in 7 Geo. IV, for extending to Charing Cross, the Strand, and places adjacent, the powers of an act for making a more convenient communication from Mary-le-bone Park, and for enabling the Commissioners of H.M. Woods, Forests, and Land Revenues, to grant leases of the site of Carlton Palace. 1828 (409) i. 467.

*—Act 9 Geo. IV, c. 70.

*—Bill to extend the jurisdiction of the commissioners under the acts for paving and regulating the Regent's Park, together with the New Street from thence to Pall Mall; and to amend the said acts. 1828 (408) i. 439.

*—Act 9 Geo. IV, c. 64.

*—Bill to amend 7 Geo. IV, for consolidating the trusts of the several turnpike roads in the neighbourhood of the metropolis, north of the Thames, and to make and maintain two new or branch roads to communicate with the said metropolis roads. 1829 (130) ii. 111.

*—Act 10 Geo. IV, c. 59.

*—Bill to amend an act of 7 Geo. IV, for extending to Charing Cross, the Strand, and places adjacent, the powers of an act for making a more convenient communication from Mary-le-bone Park. 1829 (242) ii. 299.

*—Act 10 Geo. IV, c. 61.

*—Monies received and expended in carrying into execution 7 Geo. IV, c. 77, and sum required for completing the improvements. 1829 (96) xxi. 83.

*—Returns relating to the improvements at Charing Cross and the Strand, showing what particular sums were applied thereto, the locality of Crown property sold, property agreed to be sold, property acquired by exchange and property contemplated to be sold. 1829 (179) xxi. 89.

*—Bill to authorize and empower the commissioners appointed by Act, 7 Geo. IV, for extending to Charing Cross, the Strand, and places adjacent, the powers of act for making a more convenient communication from Mary-le-bone Park, to make and form a new street from the Strand to Charles Street, Covent Garden, and to widen the north end of Bow Street into Long Acre. 1830–31 (244, 314) ii. 609, 621; 1831 (95) iii. 663.

*—Act 1 and 2 Gul. IV, c. 29.

*—Account of money assessed under various acts from 1813 [Regent's Park and Regent's Street]; amount borrowed by commissioners; debt due; names of commissioners; number of meetings; number present. 1832 (472) xxvi. 545.

*U.K. Govt. Bill to extend the jurisdiction of the commissioners acting in the execution of three acts for paving and regulating the Regent's Park and the several streets and places in Westminster to certain other streets and places in Westminster, and for other purposes. 1832 (434, 489) iv. 695, 719.

*—Act 2 and 3 Gul. IV, c. 56.

*—Names of streets under the management of optional commissioners; titles under which they act; sums rated annually, 1821–1831. 1832 (549) xlv. 163.

*—Report from Select Committee appointed to inquire into the most economical and eligible mode of improving the approaches to the Houses of Parliament and courts of law, and improving the neighbourhood of Buckingham Palace. 1832 (567, 614) v. 425, 427.

The tunnel under the Thames. An exposition of facts . . . relating to the tunnel . . . as the same was . . . submitted to the King by Mr. Isambard Brunel. 1833. 8vo. 8767.bbb.6.(9).

*U.K. Govt. Amount of receipt and expenditure for paving, lighting, etc., Regent Street. 1834 (275) xli. 537.

*—Expenses of optional streets, Westminster; rates collected, clerks employed, debt incurred, etc. 1834 (276) xli. 539.

*—Abstract statement of accounts for paving, lighting, etc., the Regent's Park, Regent Street, Whitehall, etc. 1835 (520, App.) xx. 873.

*—Houses and properties assessed to the paving rate by the committee for paving the parish of St. Martin-in-the-Fields, the line of road running from the east end of Pall Mall. 1835 (520, App.) xx. 872.

*—Report from the Select Committee on Regent Street paving, with the minutes of evidence and appendix. 1835 (520) xx. 617.

*—Abstract of the expenses of the metropolis roads, 1827–1835. 1836 (547, App.) xix. 502.

*—Amount of tolls received; of debts due before the consolidation; aggregate debts of the Metropolis Roads Commissioners; extent of districts; Parliamentary and law charges. 1836 (316) xxxvi. 385.

*—Report from the Select Committee on Metropolis Improvements, with minutes of evidence, etc. 1836 (517) xx. 1.

*—Report from the Select Committee on Regent Street paving, with the minutes of evidence and appendix. 1836 (335) xx. 63.

*—Bill for improving the public ways in and near the metropolis. 1837 (142) iii. 393.

*—Bill to amend Act 7 Geo. IV, to vest in the Commissioners of Woods, Forests, etc., the powers of several Acts of Parliament for the improvements of the streets near Westminster Hall and the Houses of Parliament, and to authorize the conversion of the pavements in several parts of the metropolis into broken-stone roads, and for extending the powers and provisions thereof. 1838 (331) vi. 677; as amended in Committee (384) vi. 681.

*—Reports [2] from the Select Committee appointed to take into consideration the several plans for the improvement of the metropolis, concerning which a report was made . . . in 1836, together with any other plans for the same object which they may deem deserving of their consideration, etc. 1838 (418, 661) xvi. 1, 9.

*—Bill to empower the Commissioners of Woods and Forests to raise a sum of money for making additional thoroughfares in the metropolis. 1839 (409, 476) iv. 241, 265.

*—Act 2 and 3 Vict., c. 80.

*U.K. Govt. Report from the Select Committee appointed to take into consideration several plans for the improvement of the metropolis; and various petitions, evidence, and plans. 1839 (136) xiii. 459.
*—Bill to enable H.M. Commissioners of Woods, Forests, and Land Revenues, Works, and Buildings, to make additional thoroughfares in the metropolis. 1840 (450) iii. 57.
*—Act 3 and 4 Vict., c. 87.
*—Bill to enable H.M. Commissioners of Woods and Forests to make new streets, and complete other improvements in the metropolis. 1840 (553) iii. 113.
*—Estimate of the amount required to complete the laying out the area of Trafalgar Square. 1840 (434–I) xxx. 885.
*—Petition of Rigby Wason, John Ashton Yates, and Richard Rushton Preston, praying the adoption of the plan of a new line of street in the city of Westminster. 1840 (485, Appx.) xii. 134.
*—Petitions of the inhabitants of the metropolis and vicinity, praying the adoption of certain new lines of streets and public thoroughfares. 1840 (In 410—Appx) xii. 83.
*—Report from the Select Committee on the Thames Embankment, together with the minutes of evidence taken before them, appendix and index, and plans. 1840 (554) xii. 271.
*—Report from the Select Committee on Trafalgar Square, together with minutes of evidence and appendix. 1840 (548) xii. 387.
*—Reports (2) from the Select Committee on Metropolis Improvement; with the minutes of evidence, appendix, and index. 1840 (410, 485) xii. 1, 117.
*— . . . Statement of the plan approved and sanctioned by H.M. Commissioners of Woods and Forests for laying out the vacant space in front of the National Gallery. 1840 (381) xxix. 753.
*—Bill to empower the Commissioners of H.M. Woods to raise money for certain improvements in the metropolis on the security of the land revenue of the Crown within the county of Middlesex and city of London. 1841 (385) ii. 683.
*—Bill to enable H.M. Commissioners of Woods, Forests, etc., to make a new street from Coventry street, Piccadilly, to Long Acre; and also a new street from the east end of East Smithfield; and for authorizing advances to be made towards other improvements in the metropolis. 1841 (63) ii. 629.
*—Act 4 and 5 Vict., c. 12.
*—Report from the Select Committee appointed to take into consideration plans for improving the metropolis. 1841 (398) ix. 601.
—Annual accounts of the Chamberlain of the City of London, relating to duties and payments; . . . London Bridge; . . . Blackfriars Bridge; . . . paving and lighting, etc.; new street from Farringdon Street . . . 1842 *et seq.*

*1842 (467) xxxvii. 45.
*1843 (544) xlviii. 1.
*1845 (546) xli. 399.
*1846 (in 411) vi. (Pt. 2) 123.
*1847 (636) xliv. 409.
*1851 (580) xxxi. 223.
*1852–53 (30) c. 75.
*1854–55 (425) liii. 591.
*1856 (397) lix. 309.
*1857 (156 Sess. 2) xxxix. 359.
*1857–58 (405) xlviii. 313.
*1859 (92, Sess. 2) xxvi. 203
1861 (195, 432) l. 703, 715.
*1862 (332) xlvii. 301.
*1863 (458) l. 5.
*1864 (469) l. 1.
*1865 (443) xlvii. 3.
1866 (403) lix. 3.
1867 (499) lviii. 425.
1867–68 (385) lviii. 1.
1868–69 (329) li. 561.
1870 (345) lv. 5.
1871 (365) lvii. 149.
1872 (301) xlix. 325.
1873 (301) lvi. 385.
1874 (273) lvii. 1.

1875 (332) lxiv. 585.
1876 (365) lxiii. 553.
1877 (344) lxxi. 437.
1878 (330) lxv. 395.
1879 (318) lxi. 383.
*1880 (310) lxii. 353.
1881 (379) lxxix. 247.
1882 (326) lix. 255.
1883 (276) lix. 419.
1884 (308) lxviii. 255.
*1885 (318) lxvii. 751.
1886 (238, Sess. 1), lvii. 301.
1887 (241) lxxi. 287.
1888 (322) lxxxvii. 531.
1889 (296) lxvi. 611.
1890 (332) lxiii. 727.
1891 (369) lxix. 1.
1892 (311 Sess. 1) lxviii. 1155.
*1893 (353) lxxvii, 1221.
1894 (233) lxxiv. (Part II) 511
1895 (400) lxxxv. 531.
*1896 (284) lxxii. 823.
*1897 (303) lxxvi. (Part II.), 433.
*1898 (321) lxxx. 869.
*1899 (289) lxxxiv. 523.
*1900 (303) lxxiv. 437.
*1901 (292) lxv. 497.
*1902 (308) lxxxviii. 633.
*1903 (287) lix. 1303.
*1904 (286) lxxxiii. 663.
*1905 (255) lxviii. 1021.
*1906 (293) civ. 817.
1907 (275) lxxiii. 555.
*1908 (251) xciii. 707.
*1909 (241) lxx. 607.
*1910 (266) lxxiii. 891.
*1911 (235).

***U.K. Govt.** Bill to empower the Commissioners of H.M. Woods to appropriate to building purposes the area of Thatched-House-Court, and to widen and improve Little St. James's Street, Westminster. 1843 (163) iii. 171.

*—Act 6 and 7 Vict., c. 19.

*—Copy of Commission for inquiring into and considering the most effectual means of improving the metropolis, and of providing increased facilities of communication within the same. 1843. (139) xlviii. 35.

*—Estimate of the amount required on account of Trafalgar Square. 1843 (91–I) xxxi. 393.

*—Return of amount expended in each of the last five years by the Commissioners for paving the Regent's Park, etc. 1843 (601) xlviii. 37.

*—Bill to provide for the care and preservation of Trafalgar Square in the city of Westminster. 1844 (480) iv. 725.

*—Act 7 and 8 Vict., c. 60.

*—Bill to widen and improve Piccadilly, in the city of Westminster. 1844 (479) iv 77.

*—Act 7 and 8 Vict., c. 88.

*—Bill to empower H.M. Commissioners of Woods to form a terrace and embankment, with convenient landing places for the public, on the Middlesex shore of the River Thames, between Westminster and Blackfriars Bridges. 1844 (562), iv. 637.

*—Bill to enlarge the powers of an Act of the fourth and fifth years of Her present Majesty, empowering the Commissioners of H.M. Woods to raise money for certain improvements in the metropolis, on the security of the land revenues of the Crown, within the county of Middlesex and city of London. 1844 (3) iii. 695.

*—Estimate of the amount required on account of Trafalgar Square. 1844 (108–I) xxxiii. 500.

*—Papers relative to the proposed embankment of the Thames on the Middlesex shore, between Vauxhall and Battersea bridges. 1844 (in 15) xv. 391.

*—Reports of the Commissioners appointed . . . to inquire into and consider the most effectual means of improving the metropolis, and of providing increased facilities of communication within the same. 1844–51. 1st—1844 (15) xv. 1; 2nd—1845 (348) xvii. 1; 3rd—1845 (619) xvii. 341; 4th—1845 (627) xvii. 439; 5th—1846 (682) xxiv. 321; 6th—1847 (861) xvi. 349; 7th—1851 (1356) xxix. 287.

*U.K. Govt. Act to enable the Commissioners of Greenwich Hospital to widen and improve Fisher Lane, Greenwich. 1845. Act 8 and 9 Vict., c. 22.

*—Bill to enable the Commissioners of H.M. Works to construct an embankment and roadway on the north shore of the River Thames, from Battersea Bridge to Vauxhall Bridge, and to build a suspension bridge over the said river at or near Chelsea Hospital, with suitable approaches thereto, including a street from Lower Sloane Street to the northern extremity of the bridge. 1846 (252) i. 275.

*—Act 9 and 10 Vict., c. 39.

*—Bill to enable the Commissioners of H.M. Woods to construct a new street from Spitalfields to Shoreditch. 1846 (362) iv. 325.

*—Bill to empower the Commissioners of H.M. Woods to remove the Colonnade in the Regent's Quadrant. 1848 (514) vi. 85.

*—Copy of circular letter addressed by the Commissioners of Woods and Forests to lessees of houses in the Quadrant, Regent Street, respecting the removal of the Colonnade, and of the replies respectively received to the said letter. 1848 (519) lx. 399.

*—Statement, to January 5th, 1864, of the receipt and expenditure on account of the metropolitan improvements, and return in detail of the surveyors employed, and the sums paid to each respectively. 1848 (440) xxxix. 423.

*—Abstract returns of the number of turnpike gates and side bars at which tolls are payable in the boroughs of the Tower Hamlets, Finsbury, Marylebone, Lambeth, and Southwark, and the scale of tolls payable at each. 1849 (233) xlvi. 361.

*—Further abstract return, showing the dates of the establishment of the several gates and side bars. 1849 (233–II) xlvi. 365.

*—Returns of the number of houses built and of new streets formed (with their length in miles) within the Metropolitan Police district, since Jan. 1st, 1839. . . . 1849 (in 614) xliv. 497.

*—Bill to enlarge and extend 8 and 9 Vict., c. 101, for enabling the Commissioners of H.M. Woods to construct a new street from Spitalfields to Shoreditch. 1850 (661) viii. 101.

*—Act 13 and 14 Vict., c. 109.

*—Copy of report made by Edward Lawes, Esq., to the First Commissioner of H.M. Woods, etc., on the Westminster Improvement Acts Amending Bill. 1850 (396) xxxiii. 709.

*—Return from each of the several Paving Boards or districts in the parish of St. Pancras (Middlesex), showing, for the years 1847, 1848, and 1849, the rateable value of property assessed; amount of rates, receipts and expenditure; debt; number and qualifications of Commissioners, etc. 1850 (585) xlix. 57.

*—Return of all monies which H.M. Commissioners of Woods and Forests have power to raise under any Act of Parliament for the formation of Battersea Park . . . and similar return respecting the building of Chelsea Bridge. 1850 (694) xxxiii. 229.

*—Bill for transferring the duties of paving, lighting, watering, and cleansing parts of the Crown estate in the district of Regent's Park, and certain streets and places in Westminster, from the Commissioners acting under several Acts of Geo. IV and Will. IV, to the parishes; and for transferring the jurisdiction of the said Commissioners over certain other places in Westminster to the Commissioners of H.M. Woods, Forests, etc., and for other purposes. 1851 (156) ii. 395; as amended by Select Committee (606) ii. 415.

*—Act 14 and 15 Vict., c. 95.

***U.K. Govt.** Bill to amend an Act of 9 and 10 Vict., for the embankment of a portion of the River Thames. 1852 (343) iv. 385; as amended by Select Committee (465) iv. 389.

*—Act 15 and 16 Vict., c. 71.

*—Return of the tolls collected by the Corporation of the City of London at the several gates and avenues of the city, for the three years 1849, 1850 and 1851, distinguishing the amount collected at each gate or avenue, and specifying the tolls. 1852 (157) liii. 263.

*—Accounts of all monies borrowed or guaranteed on the security of the land revenues of the Crown for the purpose of metropolitan improvements, and of all monies charged upon the London Bridge Approaches Fund for the like purpose, which monies it is proposed to pay out of the Consolidated Fund, to the amount not exceeding £1,220,000. 1853 (187) ci. 13.

*—Bill to authorise advances out of the Consolidated Fund, to discharge monies borrowed on the security of the Land revenues of the Crown, for the purpose of metropolitan improvements, and providing for the payment of such advances and of certain monies charged on the London Bridge Approaches Fund. 1853 (146) v. 41; amended in Committee, (200) v. 47.

*—Bill to enlarge and extend the powers of an Act of 15 and 16 Vict. for enabling the Commissioners of H.M. Works and Public Buildings to complete improvements in Pimlico, and in the neighbourhood of Buckingham Palace. 1853 (519) v. 443; amended in Committee, (650). *Not printed.*

*—Bill to extend the time for constructing a new street from Spitalfields to Shoreditch, and to amend the Acts relating thereto. 1853 (590) vi. 449.

*—Act 16 and 17 Vict., c. 52.

*—Bill to give to the Commissioners of H.M. Works and Public Buildings extended time and further powers for completing the embankment of the River Thames between Vauxhall and Battersea Bridges, and a new street from Lower Sloane Street in connection therewith. 1853 (518) vii. 379; as amended by Select Committee (712, 738) vii. 395, 411.

*—Act 16 and 17 Vict., c. 87.

*—Gross amount expended in forming the new street from Coventry Street to Long Acre, ground-rents sold, etc. 1853 (In 916) xxii. 348.

*—Gross amount expended in forming the new street from East Smithfield to Rosemary Lane, ground-rents sold, etc. 1853 (In 916) xxii. 348.

*—Special report of the Select Committee to whom the Westminster Improvements Bill was referred. 1853 (685) xxxix 465.

*—Amount received by the Corporation of the City of London on account of street tolls from January 1st, 1852, to February 7th, 1654. 1854 (112) lxiii. 575.

*—Correspondence respecting the paving of Tower Hill, Postern Row and George Street, and the removal of the bars placed therein by the Tower authorities. 1855 (478) liii. 411.

*—Report from the architect and engineer, as to the progress and present state of Battersea Park and Chelsea Bridge. 1855 (348) liii. 57.

*—Return of the number of toll-gates on the Metropolitan turnpike roads north of the Thames, and of the debts remaining due in respect thereof. 1855 (312) xlix. 325.

*—Return of the number of toll-gates and toll-bars on the roads and streets within the limits of the Metropolis Turnpike Roads Commission, north of the Thames, existing on March 25th, 1832, 1842, and 1853, with total income and expenditure, and amount of unliquidated debt on March 25th of those years, and of 1855; names of Commissioners, etc., and exemptions from tolls. 1855 (477) xlix. 327.

***U.K. Govt.** Returns relating to the paving, cleaning, and lighting, etc., of each parish and extra-parochial place within the Metropolitan districts. 1855 (127) liii. 153.

*—Copies of minutes of Commissioners, relative to the reduction of tolls in the ninth district of the Metropolis roads; account from 1850, showing the receipts and the expenditure, and the mileage of each district; and number of gates and bars within a radius of four miles from Charing Cross. 1856 (237) lviii. 317.

*—Copy of Act to authorise the making certain roads, and stopping up certain lanes and footways between Kensington Gore and Brompton, in the county of Middlesex, and for otherwise facilitating the formation of a site for institutions connected with science and arts. 1856 (In 2065) xxiv. 577.

*—Estimate for constructing a road through St. James's Park from Pall Mall to Buckingham Gate, and for a footbridge over the ornamental water. 1856 (In 223-VIII) xxxix. 689.

*—Estimate of the cost of forming an entrance to St. James's Park from Pall Mall, to pass between St. James's Palace and the German Chapel, the gates next Pall Mall being left as at present. 1856. (276) xxxix. 695.

*—Report from the Select Committee appointed to consider the expediency of removing the toll-gates on Metropolis turnpike roads; with the proceedings, minutes of evidence, appendix, and index. 1856 (333) xiv. 79.

*—Report from the Select Committee on St. James's Park; together with the proceedings of the Committee, and minutes of evidence. 1856 (85) vii. 387.

*—Report to the First Commissioner of Works by the architect, respecting Pimlico improvements. 1856 (193—I) lii. 99.

*—Report respecting the Spitalfields Extension Line of Metropolitan Improvements [new street from Spitalfields to Shoreditch]. 1856 (193—II), lii. 109.

*—Reports on the progress of works on the Thames Embankment, Chelsea Bridge, the new street from Lower Sloane to Chelsea Bridge, and Battersea Park, by Mr. Page and Mr. Pennethorne. 1856 (193) lii. 69.

Law (H.) A memoir on the several operations and the construction of the Thames Tunnel by Sir Isambard Brunel. Part I. 1857. 4to. 8775.f.

***London County Council.** Bye-law governing the formation of new streets. 1857. No. 28.

***U.K. Govt.** Bill to extend the time for enabling the Commissioners of H.M. Works to complete improvements in Pimlico, and in the neighbourhood of Buckingham Palace. 1857 (49, Sess. 2) iii. 419; amended by Select Committee, (110, Sess. 2) iii. 423.

*—Report to the Treasury by the First Commissioner of Works, in relation to the state of the metropolitan improvements, viz., Battersea Park, Chelsea Bridge and Embankment, Pimlico Improvement, and Spitalfields new street, with correspondence. 1851 (130, 251, Sess. 2) xli. 137, 191.

***Toll Reform Association.** Toll reform: petition . . . with statement and opinions as to the metropolitan turnpikes. 1858. 8vo, pp. 36. 8228.e.1.(5).

***U.K. Govt.** Accounts of receipts and expenditure for 1856–57, of each district, dates of meetings of companies, statement of number of side-bars, total mileage of roads, and particulars as to the "Lyon" and other bequests, etc. [Metropolis roads]. 1858. (140) xlviii. 411.

*U.K. Govt. Return of outlay on Battersea Park, Chelsea Bridge, and Chelsea Embankment, showing amount paid for purchase of land, quantity of land, amount expended on land, and received from sale of land, etc. 1858 (237) xlviii. 1.

*—Return of the number of parishes in the district of the Metropolitan Board of Works which have the entire control of their roads, streets, and thoroughfares, and make and repair the same out of parish rates; also, parishes which have not such entire control, and are assisted by tolls, etc.; and mileage of roads, etc. 1858 (329) xlviii. 401.

*—Return of turnpike trusts within six miles of Charing Cross, acts under which they exist, number of gates and bars, mileage of roads, number and names of surveyors and secretaries, salaries, etc. 1858 (364) xlviii. 393.

—Return from each vestry and district board elected under the Metropolis Local Management Act, setting forth . . . rate in the £ levied for county police, poor . . . paving, lighting, and cleansing . . . and other charges. 1858 *et seq.*

*1857–58 (149, 149–I) xlviii. 351, 389.

*In 1859–60—1862 (32) xlvii. 349.

In 1865–66—1867–68 (37) lviii. 51.

*—Bill to extend the provisions of the Metropolitan Police Act for the prevention of obstructions from advertisements in the highways of the metropolis. 1859 (102, Sess. 2) ii. 101.

*—Bill to restrict the erection of permanent structures in the carriageways of the metropolis. 1859 (43, Sess. 2) ii. 47.

*—Report of the commissioners appointed to inquire as to the best means of affording relief to the inhabitants of the metropolitan districts, within six miles of Charing Cross, by the abolition of turnpike gates and toll-bars, with the minutes of evidence and appendix. 1859 [2552, Sess. 2] xi. 183.

*—Report from the Select Committee appointed to consider the best means of providing for the increasing traffic of the metropolis by the embankment of the Thames [north side], with the proceedings, minutes of evidence, appendix, and index. 1860 (494) xx. 321.

*—Return of the amount received for tolls in the parish of Islington, and cost of maintenance of the roads. 1860 (478) lxi. 547.

*—Report of the commissioners appointed to inquire into plans for embanking the River Thames within the metropolis [north side] with plan and appendices. 1861 [2872] xxxi. 267.

—Return of the date and amount of loan for Southwark and Westminster new street; and when repayable. 1861 (267) l. 673.

—Return showing the cost, extent, and time occupied in the completion of certain metropolitan improvements: viz., Spitalfields, New Oxford Street, Endell Street, St. Martin's Lane, Cranbourne Street, Pimlico, New Cannon Street (City), Victoria Streets (Clerkenwell and Westminster. 1861 (540) l. 679.

*—Bill for embanking the north side of the river Thames from Westminster Bridge to Blackfriars Bridge, and for making new streets in and near thereto, and from Blackfriars Bridge to the Mansion House, and for amending the "London Coal and Wine Duties Continuance Act, 1861." 1862 (44) v. 91; amended by Select Committee, (162) v. 229; Lord's Amendments (239) v. 271.

*—Act 25 and 26 Vict., c. 93.

*—Correspondence, etc., relating to the works under the Thames Embankment Bill. 1862 (369) xlvii. 509.

*U.K. Govt. Estimate of the expenditure to carry into effect the provisionsof the Thames Embankment Bill, distinguishing the cost of approaches to the Embankment, and of the street to the Mansion House, etc. 1862 (171) xlvii. 507.

*—Report from the Select Committee on the Thames Embankment (North Side) Bill, with the proceedings, minutes of evidence, appendix, map, and index. 1862 (344) xv. 1.

*—Report of the commissioners appointed to examine into plans for embanking the Surrey side of the River Thames within the metropolis, with plans and appendices. 1862 [3043] xxviii. 61.

*—Return of the dates of purchases made by the Metropolitan Board of Works of properties required for the new street from the High Street, Southwark, to Stamford Street, amount of purchase money, times when properties vacated and pulled down, particulars of land tax paid, interest paid for monies borrowed, etc. 1862 (102) xlvii. 489.

*—Bill for making a new street from Blackfriars to the Mansion House, in the City of London, in connection with the embankment of the River Thames on the northern side of that river, and for other purposes. 1863 (23) v. 133; as amended by Select Committee (94) v. 143; Lord's Amendments (196) v. 155.

*—Act 26 and 27 Vict., c. 45.

*—Bill for the embankment of part of the River Thames on the south side thereof, in the parish of St. Mary, Lambeth, and for other purposes. 1863 (65) v. 157; amended by Select Committee (171) v. 169; Lord's Amendments (246) v. 185.

*—Act 26 and 27 Vict., c. 75.

*—Bill to amend the acts relating to the turnpike roads in the neighbourhood of the metropolis north of the River Thames. 1863 (47) iii. 63; amended by Select Committee (131) iii. 81.

*—Act 26 and 27 Vict., c. 78.

*—Correspondence between the Corporation of the City of London and H.M. First Commissioner of Works, since May 1st, relative to the construction of the proposed new street from Blackfriars Bridge to the Mansion House. 1863 (254) l. 163.

*—Report from the Select Committee on the Thames Embankment (North Side) Bill, with the proceedings, minutes of evidence, appendix, and index. 1863 (219) xii. 413.

*—Report from the Select Committee on the Thames Embankment (South Side) Bill, with the proceedings and minutes of evidence. 1863 (367) xii. 547.

*—Report of the Commission appointed to consider plans for making a communication between the Embankment at Blackfriars Bridge and the Mansion House, and also between the Embankment at Westminster Bridge and the Embankment at Millbank, with plans and appendix. 1863 [3093] xxvi. 431.

*—Report from the Select Committee on the London (City) Traffic Regulation Bill [Lords], with the proceedings and minutes of evidence. 1863 (440) x. 1.

*—Return of the cost of making each of the following streets: New Oxford Street, Cranbourne Street, and Victoria Street, Westminster; stating the years when made, the public department charged with their construction, and how the charge was provided for. 1863 (376) l. 115.

*—Return of the sum placed to the credit of the Thames Embankment and Metropolis Improvement Fund, on the passing of the Coal and Wine Duties Act, sums since received by, and paid from that fund, and the balance on March 31st, 1863. 1863 (317) l. 161.

***U.K. Govt.** Bill for empowering the Commissioners of the Treasury to guarantee, and the commissioners for the Reduction of the National Debt to advance, the sums authorised to be borrowed for the embankment of the Thames and improvement of the metropolis, and for other purposes connected therewith. 1864 (191) iv. 481.

*—Act 27 and 28 Vict., c. 61.

*—Bill to make provision respecting the use of subways constructed by the Metropolitan Board of Works in the metropolis. 1864 (42) iii. 29.

*—Correspondence in reference to opening Hamilton Place to public traffic. 1864 (541) l. 199.

*—Letter from the Metropolitan Board of Works to the Chancellor of the Exchequer, dated March 24th, 1864, respecting a Government guarantee of the moneys to be borrowed for the construction of the Thames Embankment, and Treasury minute thereon. 1864 (440) l. 179.

*—Report from the Select Committee on the Metropolitan Subways Bill, with the proceedings, minutes of evidence, appendix, and index. 1864 (378) xi. 337.

*—Return showing advances made out of the Consolidated Fund under the Metropolitan Improvements Act, 16 and 17 Vict., c. 18, repayments made, and property vested in the Commissioners of Works under the said act. 1864 (492) l. 161.

*—Correspondence between the Board of Trade and the Metropolitan Board of Works relative to the material used for filling in the Thames Embankment, and report of Messrs. Coode and Rawlinson thereon. 1865 (149, 389) xlvii. 193, 255.

*—Correspondence on the subject of any proposed thoroughfare between Park Lane and Piccadilly, with plans. 1865 (132) xlvii. 125.

*—Correspondence with the Conservators of the River Thames, with regard to filling in the Embankment with gravel dredged from the bed of the river. 1865 (83, 369) xlvii. 183, 209.

*—Minutes of evidence taken before the Select Committee on the Piccadilly and Park Lane New Road Bill, with the proceedings of the committee. 1865 (260) viii. 647.

London : *Commissioners of Sewers.* Report to the Special Committee upon Improvements . . . on the traffic and improvements in the public ways of the City of London. By W. Haywood. 1866. 8vo, pp. 112, *map.* 08235.aa.3.

U.K. Govt. Bill for regulating the traffic in the metropolis, and for making provision for the greater security of persons passing through the streets, and for other purposes. 1866 (227) v. 443.

—Return of the number and names of officers employed by the commissioners of turnpike roads north of the Thames with their salaries in 1862, and up to the passing of the Act 26 and 27 Vict., c. 78, and of officers dismissed and retained by the Commissioners since the passing of that Act, amounts paid by way of compensation on dismissal, and salaries of such as have not been dismissed, with the amount of compensation paid to them on the reduction of their salaries. 1866 (197) lix. 181.

—Special report from the Select Committee on the London (City) Traffic Regulation Bill. 1866 (174) xii. 1.

—Accounts of the Thames Embankment and Metropolis Improvement Fund, etc., showing the amounts received to the credit of the said fund, and the payments out of the same to the Metropolitan Board of Works, etc. 1867 (360) lviii. 735.

*U.K. Govt. Bill to authorize the Commissioners of H.M. Works and Public Buildings to acquire lands for the purposes of the new Palace at Westminster, and to construct an embankment on the north shore of the River Thames in the parish of St. John the Evangelist, Westminster. 1867 (56) vi. 403.

*—Act 30 and 31 Vict., c. 40.

—Bill intituled an Act for regulating the traffic in the metropolis, and for making provision for the greater security of persons passing through the streets, and for other purposes. 1867 (97) vi. 423.

*—Act 30 and 31 Vict., c. 134.

—Bill to make better provision for the raising of money to be applied in the execution of works of permanent improvement in the metropolis. 1867 (55) iv. 203.

—Bill to make provision respecting the use of subways constructed by the Metropolitan Board of Works in the metropolis. 1867 (139) iv. 117; as amended by Select Committee (249) iv. 123.

—Bill to regulate the construction and use of buildings, and the formation of streets, and of sewers and drains in the metropolis, and for other purposes connected therewith. 1867 (293) iv. 129.

—Minutes of evidence taken before the Select Committee on Metropolis Subways Bill, with the proceedings, appendix, and index. 1867 (495) xi. 203.

*—Report from the Select Committee of the House of Lords on the Traffic Regulation (Metropolis) Bill, with the proceedings, minutes of evidence, and index. 1867 (186) xi. 641.

*—Bill for extending the provisions of the Thames Embankment and Metropolis Improvement (Loans) Act, 1864, and for amending the powers of the Metropolitan Board of Works in relation to loans under that act. 1868 (133) v. 285.

*—Act 31 and 32 Vict., c. 43.

—Bill for the amendment of the Metropolitan Streets Act, 1867. 1868 (2) iii. 495.

*—Act 31 and 32 Vict., c. 5.

—Bill to make provision respecting the use of subways constructed by the Metropolitan Board of Works in the metropolis. 1868 (41) iii. 487.

—Report and plan of Mr. Pennethorne for opening a street between the Thames Embankment and the Horse Guards, through Whitehall Yard and the garden of Fife House. 1868 lviii. 317.

—Special report from the committee on the Park Lane Improvement Bill. 1868 (293) viii. 689.

—Statement of receipts and payments to May 5th, 1868, and of the estimated costs and balance required for the completion of the works of the Thames Embankment (north and south), Mansion House Street, and Thames Embankment approaches. 1868 (312) lviii. 249.

—Correspondence relating to the proposed improvements in Park Lane and Hamilton Place. 1869 (168) li. 887.

—Bill to consolidate and amend the Building Acts relating to the metropolis, the formation of streets and of sewers and drains in the metropolis, and for other purposes relating thereto. 1870 (80) iii. 357.

—Bill to enable the Commissioners of H.M. Works and Public Buildings to improve a part of the Kensington Road in the county of Middlesex. 1870 (128) ii. 443.

*U.K. Govt. Plan of the Thames Embankment from Westminster Bridge to Blackfriars Bridge, showing the line of the ancient shore and buildings, and the present Embankment and roadway, with particulars of the different parts of the foreshores reclaimed from the river; also the total cost to the ratepayers of the metropolis of the whole Embankment, the amount paid to the Conservators of the Thames, and to the Duchy of Lancaster, for their respective rights in the foreshores. 1870 (276) lv. 87.

—Plans and papers relating to the Kensington Road Improvement Bill. 1870 (272) lv. 55.

Carr (Henry) Metropolitan street traffic. Suggested improvements. 1871. 8vo. 8775.ff.

U.K. Govt. Bill for the better prevention of street accidents in the metropolis. 1871 (288) vi. 205.

*—Report from the Select Committee on appropriation of land on the Thames Embankment, together with the proceedings of the committee, minutes of evidence, appendix, and index. 1871 (411) xli. 375.

—Report of Mr. Gore to Treasury relative to the claims of the Crown and the Consolidated Fund under the Thames Embankment Act of 1862. 1871 (212) lvii. 517.

—Return of the expenditure in constructing the carriage road from the steps of the York Column to Storey's Gate, and papers relating thereto. 1871 (404) lvii. 543.

London: *Metropolitan Board of Works.* Report by J. W. Bazalgette in answer to the objections to their proposed scheme of street improvements raised by Mr. Haywood in his report to the City Commissioners of Sewers . . . 1872. 8vo, pp. 21.

U.K. Govt. Bill to authorize the acquisition and appropriation by the Metropolitan Board of Works of certain lands reclaimed from the River Thames in pursuance of the Thames Embankment Act, 1862. 1872 (82) vi. 1; as amended by Select Committee (214) vi. 9.

*—Copy of a letter from Mr. Charles Gore to the Metropolitan Board of Works on the subject of land on the Thames Embankment, and of the reply thereto. 1872 (84) xxxvi. 609.

*—Minutes of evidence taken before the Select Committee on the Thames Embankment (Land) Bill, with the proceedings of the committee, and a plan. 1872 (287) xii. 73.

—Return from the Metropolitan Board of Works of copy of replies received from vestries and district boards of the metropolis, asking for information of works of sanitary and street improvements in the several districts since the passing of the Metropolis Local Management Act, 1855. 1872 (298) xlix. 585.

—Returns of all sums paid by, and of all outstanding claims against, the Metropolitan Board of Works for compensation, under the Thames Embankment Act, 1862, and of all sums received or to be received by the board for any lands or leases sold or rights given up under the same act. 1872 (181) xlix. 661.

London: *Commissioners of Sewers.* Report . . . on the accidents to horses on carriageway pavements. 1873. 8vo, pp. 145, *map.* 8768.k.10.

U.K. Govt. Bill to authorize the acquisition and appropriation by the Metropolitan Board of Works of certain land reclaimed from the River Thames in pursuance of the Thames Embankment Act, 1862. 1873 (65) vi. 5; as amended by Select Committee (152) vi. 11.

*—Act 36 and 37 Vict., c. 40.

U.K. Govt. Bill for consolidating, with amendments, the Building Acts relating to the Metropolis, for making better provision respecting streets and sewers and drains in the Metropolis, and for other purposes relating to the Metropolis. 1874 (3) iii. 349.

—Special report from the Select Committee on the Metropolitan Buildings and Management Bill, together with the proceedings of the committee, minutes of evidence, appendix, and index. 1874 (285) x. 333.

—Return of all sums contributed by the Metropolitan Board of Works to improvements within the City of London, specifying the proportion towards estimated gross total of cost of improvements since the date of the Metropolitan Local Management Act, 1855, to the end of 1874. 1875 (113) lxiv. 791.

—Return of . . . amount of money advanced by the Commissioners for Public Loans for the formation, etc., of Battersea Park, date of loans, rate of interest paid, principal repaid and unpaid, and similar account for Chelsea Bridge. 1875 (256) lxiv. 599.

*—Act to amend the Metropolis Management Act, 1855, the Metropolitan Building Act, 1855, and the acts amending the same respectively. 1878. 41 and 42 Vict., c. 32.

Sections 9 to 10 regulate use of streets for carriage traffic which were originally formed for foot traffic.

*—Act for further amending the acts relating to the raising of money by the Metropolitan Board of Works, and for other purposes relating thereto. 1880. 43 and 44 Vict., c. 25.

*—Act for further amending the acts relating to the raising of money by the Metropolitan Board of Works, and for other purposes relating thereto. 1881. 44 and 45 Vict., c. 48.

—Report from the Select Committee appointed to consider the working of the Artisans' and Labourers' Dwellings Improvement Acts, and the Metropolitan Streets Improvement Acts, 1872 and 1877, with the proceedings, evidence, appendix, and index. 1881 (358) vii. 395.

—Further report, 1882 (235) vii. 249.

—Bill to amend the 78th section of the Metropolis Management Amendment Act, 1862, as to the rating of footways. 1882 (110) iv. 55.

*—Act 45 and 46 Vict., c. 33.

—Bill to confer further powers upon the Metropolitan Board of Works with respect to streets and buildings in the metropolis. 1882 (107) iv. 39.

*—Act 45 and 46 Vict., c. 14.

—Return of all gates, bars, etc., on private property in the metropolis, which obstruct vehicles, with the authority for them, and the regulations which govern them; and any correspondence about their removal between the vestries, the Metropolitan Board of Works, and their owners. 1882 (369) lxi. 355.

*—Act to amend the acts relating to the raising of money by the Metropolitan Board of Works, and for other purposes. 1883. 46 and 47 Vict., c. 27.

Sections 8–9 empower Board to expend money for street improvements, bridge maintenance, and Hyde Park Corner improvements.

—Bill to provide for the maintenance of the new streets at Hyde Park Corner. 1883 (275) vi. 223.

—Bill to provide for the maintenance of the new streets at Hyde Park Corner. 1884 (136) iii. 365.

U.K. Govt. Bill to extend the area to which the Metropolitan Streets Act, 1867, applies. 1885 (137) iii. 675.

*—Act 48 and 49 Vict., c. 18.

—Bill to provide for the maintenance of the new streets at Hyde Park Corner. 1885 (73) ii. 127.

—Bill to provide for the maintenance of the new streets at Hyde Park Corner. 1886 (103, Sess. I) ii. 509; amended by Select Committee, (182, Sess. I) ii, 513.

—Report from the Select Committee on the Hyde Park Corner (New Streets) Bill; with the proceedings and evidence. 1886 (114, Sess. I) x. 443.

*—Act for the transfer to the Metropolitan Board of Works and the maintenance of certain public parks and works in the metropolis [including Chelsea Embankment and Westminster Bridge]. 1887. 50 and 51 Vict., c. 34.

—Bill to provide for the maintenance of the new streets at Hyde Park Corner. 1887 (135) ii. 477; amended by Select Committee, (213) ii. 481.

—Report from the Select Committee on the Hyde Park Corner (New Streets) Bill; with the proceedings, evidence and appendix. 1887 (91) ix. 727.

—Return showing with respect to the several parishes and districts under Schedules A and B of the Metropolis Management Act, 1855, the names of the roads disturnpiked since the passing of that Act, length of each, name of the turnpike trust, and date on which it ceased to be a turnpike road; also showing the total sum distributed from the several grants voted by Parliament in aid of maintenance of disturnpiked and main roads in England and Wales, and the amounts paid to vestries and district boards in the Metropolis. 1887 (334) lxvi. 391.

—Bill to repeal certain parts of the Act of 57 Geo. III, c. 29 (local), intituled, an Act for better paving, improving and regulating the streets of the metropolis, and removing and preventing nuisances and obstructions thereon. 1888 (380) v. 191.

***London:** *County Council.* Highways and Locomotives Act, 1878; Local Government Act, 1888; Expiring Laws Continuance Act, 1889. Bylaws submitted with report of Highways Committee. 1890. Fol., pp. 2.

***U.K. Govt.** Act to amend the Metropolis Management Acts. 1890. 53 and 54 Vict., c. 66.

Section 3 empowers Vestry and District Boards to repair roads or ways, not being streets.

—Special Report from the Select Committee on the London Streets (Strand Improvement) Bill [touching the betterment principle]; with the proceedings. 1890 (239) xv. 5.

Hudson (A. A.) Recent legislation as to buildings and streets in London. Surveyors' Institution, Transactions, Vol. 23, pp. 184–278. 1891.

U.K. Govt. Bill to amend the General Paving (Metropolis) Act, 1817. 1891 (243) iv. 361.

Wandsworth paving works. *Surveyor*, Oct. 5, 1893.

Cawston (A.) Advantages of adopting a general scheme in making improvements to the London streets. 1893. 8vo, pp. 21. 7808.bbb.28.(7).

—Street improvements in London. 1893. 4to, pp. 136. 10349.h.33.

***U.K. Govt.** Report from the Select Committee on the London Improvements Bill; with the proceedings. 1893 (251) xii. 329.

Snow removal: the cost of a snowfall to Londoners. *Surveyor*, Feb. 15, 1894.

U.K. Govt. Report from the Select Committee on the London Streets and Buildings Bill; with the proceedings. 1894 (208) xiv. 79.

Snowfalls and carpers (in London). *Surveyor*, Jan. 17, 1895.

U.K. Govt. Correspondence between the Office of Works and the London County Council and the Wandsworth Local Board on the subject of the opening of Clarence Lane, Roehampton, for public traffic. 1895 (447) lxxix. 503.

Barber (J. Patten) Some suggested amendments of the Metropolis Local Management Acts: *with discussion*. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 22, pp. 64–84, 102–120. 1896.

U.K. Govt. Return for the year ending March 31st, under the London (Equalisation of Rates) Act, 1894, Section 1 (7), showing [*inter alia*] the total amount of the expenses incurred by each Sanitary Authority in respect of streets (other than scavenging expenses) and the amount so expended by each authority, out of the sums paid under the Act.

*1894–95—1896 (90) lxxii. 851.
*1895–96—1897 (224) lxxvi. Part II, 473.
*1896–97—1897 (371) lxxvi. Part II, 477.
*1897–98—1898 (350) lxxviii. 575.
*1898–99—1899 (323) lxxxiv. 565.
1899–1900—1900 (323) lxxiv. 539.
*1900–01—1901 (196) lxv. 531.
*1901–02—1902 (301) lxxxviii. 685.
1902–03—1903 (338) lix. 1349.
1903–04—1904 (325) lxxxiii. 707.
1904–05—1905 (277) lxviii. 1063.
*1905–06—1906 (375) civ. 859.
*1906–07—1907 (318) lxxiii. 599.
*1907–08—1908 (308) xciii. 733.
*1908–09—1909 (319) lxx. 623.
*1909–10—1910 (236) lxxiii. 917.
*1910–11—1911 (286).
*1911–12—1912 (286).

London traffic problems: how to solve them. *Surveyor*, April 8, 1898.

The maintenance of roads (at Hampstead). *Surveyor*, Dec. 2, 1898.

Paving charges (in Wandsworth). *Surveyor*, Sept. 30, 1898.

The traffic problem in London: the views of Sir John Wolfe Barry. *Surveyor*, Nov. 25, 1898.

The widening of Parliament Street. *Surveyor*, Dec. 16, 1898.

Barry (Sir John Wolfe) Address on the streets and traffic of London. Royal Society of Arts, *Journal*, Nov. 18, 1898.

The accommodation of London street traffic: Sir John Wolfe Barry's proposals. *Surveyor*, Nov. 17, 1899.

Financial loss caused by narrow streets. *Engineering Record*, Dec. 2, 1899.

***Barry (Sir John Wolfe)** London street traffic. Royal Society of Arts, *Journal*, Nov. 17, *maps*; summarised in *Engineering*, Nov. 17; *Tramway and Railway World*, Dec., 1899.

Cohen (H.) The law of cabs in London (including motor cars). 1899. 8vo, pp. 163.

The condition of London streets. *Surveyor*, Feb. 23, 1900.

The control of streets: conference in London. *Surveyor*, July 6, 1900.

London street regulations: conference of local authorities. *Surveyor*, Nov. 9, 1900.

Road maintenance: highways in a metropolitan suburb. *Surveyor*, Sept. 28, 1900.
Street improvements and loss of trade (at Wellington Street, Deptford). *Surveyor*, Oct. 5, 1900.
Caröe (W. D.) Streets and bridges considered in connection with our un-ideal city. *Surveyor*, Sept. 28, 1900, *Suppl.*
***London**: *County Council.* Report on proceedings of conference with representatives of the City Corporation and Vestries and District Boards, on June 29th, and Nov. 7th, 1900. No. 517.
Subjects dealt with are cleansing streets and footpaths; material for making up streets; watering roads; removal of snow; names of streets; vehicular traffic; opening up of roads, etc.
State of the London streets: discussion at the Sanitary Institute. *Surveyor*, Feb. 22, 1901.
Streets and street traffic in London. *Surveyor*, March 1, 1901.
The Westminster paving contracts. *Surveyor*, Nov. 15, 22, 1901.
*Work at the L.C.C. . . . Piccadilly widening. *Municipal Journal*, Oct. 18, 1901.
Conditional dedication of a highway (at Lewisham). *Surveyor*, Oct. 10, 1902.
History of the Westminster paving scandal. 1902. Fol., pp. 63. 8248.k.16.
*London street improvements: the Borough Councils v. the County Council. *Municipal Journal*, March 27, Oct. 30, 1903.
London Traffic Commission: County Council's views. *Surveyor*, May 8, 1903.
*Street paving in London. *Municipal Journal*, Jan. 9, 1903.
*Work at the L.C.C.: Lambeth Bridge and Rotherhithe Tunnel. *Municipal Journal*, Oct. 16, 1903.
*Work at the L.C.C.: improvements and bridges. *Municipal Journal*, Oct. 23, 1903.
U.K. Govt. Bill to amend the Metropolitan Streets Act, 1867. 1903 (240) iii. 375.
*—Act 3 Edw. VII, c. 17.
—Bill to authorise the appropriation of the surplus funds derived from Battersea Park towards the opening of the Mall into Charing Cross, and other metropolitan improvements. 1903 (224) iii. 367.
London traffic delays; some suggestions for reform. *Surveyor*, Feb. 12, 1904.
*A London widening (in Piccadilly): inquiry into the interest of a London County Councillor. *Municipal Journal*, Oct. 28, 1904.
Paving charges and unmarketable land (at Hampstead). *Surveyor*, Sept. 16, 1904.
*Piccadilly widening. *Municipal Journal*, Dec. 9, 1904.
Street accidents (in Shoreditch: due to half-mending of road). *Surveyor*, Apr. 15, 1904.
Blashill (Thomas) London streets and street traffic. *Surveyor*, Apr. 22, 29, 1904.
Jeffreys (W. Rees) The London Traffic problem. *Surveyor*, March 4, 1904, *illus.*, *maps.*
***London**: *County Council* Street improvements, incidence of cost. No. 858. 1904.
Reynolds (J. F. J.) The London Traffic problem; some general notes. *Surveyor*, Feb. 19, 1904, *illus.*
U.K. Govt. Bill to authorise the appropriation of the surplus funds derived from Battersea Park towards the opening of the Mall into Charing Cross, and other metropolitan improvements. 1904 (55) iii. 511.

***U.K. Govt.** Act 4 Edw. VII, c. 2.

London Traffic Commission's report. *Surveyor*, July 21, 28; Aug. 4, 11, 18, 25; Oct. 20, 27, 1905.

*Opening of streets: Metropolitan Paving Committee and public companies. *Municipal Journal*, May 19, 1905.

Paving charges: an instructive case (at Hampstead). *Surveyor*, Sept. 22, 1905.

Proposals for London improvement: an ambitious scheme. *Surveyor*, Jan. 27, 1905, *illus.*

Westminster wood paving contract. *Surveyor*, Nov. 3, 1905.

London: *County Council.* Notes on the acquisition, construction, works and maintenance of the county bridges, tunnels, ferry, embankments, etc. By Maurice Fitzmaurice, Chief Engineer and County Surveyor. No. 946. 1905.

***Meik (Charles Scott)** and **Beer (Walter)** The improvement of London traffic: read before the Society of Engineers, June 5th, 1905. 8vo, pp. iv, 15, *illus.*

***U.K. Govt.** Report of the Royal Commission appointed to inquire into and report upon the means of transport in London.

Vol. I—1905 [Cd. 2597] xxx. 533.

Vol. II—1906 [Cd. 2751] xl. 1 (Minutes of Evidence, with index and digest).

Vol. III—1906 [Cd. 2752] xli. 1. Appendices to evidence, with index.

Vol. IV—1906 [Cd. 2987] xlii. 1. Appendices, with index.

Vols. V, VI—1906 [Cd. 2798–99] xliii., xliv. *Maps and diagrams*, with indexes.

Vol. VII—1906 [Cd. 2743] xlv. 1. Report by Advisory Board of Engineers.

Vol. VIII—1906 [Cd. 2744] xlvi. 1. Appendix to Engineers' report. Vol. IV, pp. 887–946; "History of London Traffic," by T. Fairman Ordish.

London Traffic Commission report. *Surveyor*, June 8, 1906.

Repairing works in Marylebone by direct labour. *Surveyor*, Dec. 21, 1906.

U.K. Govt. Bill to establish a London Traffic Board. 1906 (189) iii. 575.

—Westminster Bridge and the Thames Embankment: return showing dates of construction, sources of funds, and public bodies to whom the execution of the works was confided. 1906 (H.L. 54).

Road repair in the metropolis [Wandsworth]. *Surveyor*, June 14, 1907.

The Westminster paving dispute. *Surveyor*, July 19, 1907.

Wood paviors' action: Acme Flooring Company *v.* Westminster City Council. *Surveyor*, July 12, 19, 1907.

***U.K. Govt.** Bill to relieve places of religious worship from liability to contribute to the expenses of paving new streets in London. 1908 (147) iii. 721.

*—Report of the London Traffic Branch of the Board of Trade.

1908 [cd. 4379] xciii. 737.

1910 [cd. 4988] xxxviii. 1.

1911 [cd. 5972].

Tabor (E. H.) Description of the Woolwich footway tunnel under the Thames: *with discussion.* Association of Municipal and County Engineers, Proceedings, Vol. 37, pp. 563–566. 1911.

3. Bridges.

(a) *History and Description.*

Hawksmoor (Nicholas) A short historical accounnt of London Bridge, with a proposition for a new stone bridge at Westminster . . . 1736. 4to, pp. 47. 577.h.12.

Langley (Batty) A design for the Bridge at New Palace Yard, Westminster . . . With observations on the several designs published to this time. 1736. 8vo. 8776.b.38.

Langley (Batty) A reply to Mr. J. James's review of the several pamphlets and schemes, that have been offered to the publick, for the building of a bridge at Westminster. 1737. 8vo. 288.c.36.

***Labelye (Charles)** A short account of the methods made use of in laying the foundation of the piers of Westminster Bridge, with an answer to the chief objections that have been made thereto. Drawn up by order of the Rt. Hon. the Commissioners appointed by Act of Parliament for building a bridge at Westminster, to which are annexed the plans, elevations, and sections belonging to a design of a stone bridge, adapted to the stone piers which are to support Westminster Bridge, with an explanation of that design. 1739. 8vo. 8776.aaa.20.

B.L.P.S. copy lacks all after page 80.

Labelye (Charles) ? The present state of Westminster Bridge. Containing a description of the said bridge . . . With a true account of the time already employed in the building . . . In a letter to a friend. 1743. 2nd ed. 8vo. 8776.aaa.(3).

***Langley (Batty)** A survey of Westminster Bridge, as 'tis now sinking into ruin; wherein the cause of the foundation giving way under the sinking pier, and its dislocated arches, is not only accounted for, but also, that the whole structure is likewise subject to the same immediate (if not unavoidable) ruin. With remarks on the piratical method used for building the piers, and a just estimate of the expence for which all their foundations might have been made secure with piles, until every stone, with which the bridge is built, was torn into atoms, by the hungry teeth of devouring Time. 1748. 8vo, pp. viii, 48, 2 *plates*. 8776.b.36.

Labelye (Charles) A description of Westminster Bridge. To which are added an account of the methods made use of in laying the foundations of its piers. And an answer to the chief objections that have been made thereto. With an appendix containing several particulars relating to the said bridge; as also its geometrical plans and the elevation of one of the fronts . . . 1751. 8vo, pp. iv, 119. B.513.(11).

Smeaton (John) Mr. Smeaton's answer to the misrepresentations of his plan for Black-Friars Bridge, contained in a late anonymous pamphlet. 1760. Fol. 358.b.5.(59).

Telford (Thomas) and **Douglas** ( ) Account of the improvements of the Port of London, and more particularly of the intended iron bridge, consisting of one arch of 600 feet span. 1801. 8vo. B.495.(6).

Seaward (J.) Observations on the rebuilding of London Bridge. 1824. 8vo.

Descriptive particulars of the Suspension Bridge, Hammersmith, with remarks on local objects and scenery. Hammersmith. 1827. 12mo. T.1208.(6).

Professional survey of the old and new London Bridges, including historical memorials of both structures . . . with . . . plates (from drawings by C. Davy) 1831. 8vo. T.1395.(13).
The new Westminster Bridge. *Engineer*, April 1, May 13, July 29, Oct. 28, Nov. 25, 1859.
Opening of the new Westminster Bridge. *Engineer*, March 9, 1860.
The Thames Bridges. *Engineer*, May 25, 1860.
Chasemore (A.) The history and associations of the old bridge at Fulham and Putney. 1875. 8vo. 10350.aaa.2.
London: *Metropolitan Board of Works.* Waterloo and Charing Cross Bridges: return as to traffic. 1878.
Bridge travel in London. *Engineering News*, Sept. 8, 1883.
Waterloo Bridge foundations. *Engineering News*, March 31, 1883.
Restoration of Waterloo Bridge. *Engineer*, May 11, 1885.
Putney Bridge. *Engineer*, July 23, 1886.
Thames Bridges. *Engineering News*, Aug. 21, 1886.
Tower Bridge. *Engineering News*, July 6, *illus.*; *Engineer*, Aug. 16, 30, Sept. 6, Oct. 18, Nov. 8, 15, Dec. 20, 1889.
Battersea Bridge. *Engineer*, July 25, 1890, *illus.*
Tower Bridge. *Railroad and Engineering Journal*, Oct. 1890, *illus.*
Tower Bridge. *Engineer*, April 17th, 1891, *illus.*
High-level steel bridges and low-level approach [Thames, Ratcliffe-Rotherhithe]. *Engineering*, Oct. 28; *Engineering Record*, Nov. 19, 1892.
Proposed Thames Bridge. *Engineering Record.* Nov. 19, 1892.
Proposed Thames bridge, Ratcliffe to Rotherhithe. *Engineer*, Oct. 28, 1892.
Tower Bridge. *Engineering Record*, May 12; *Engineer*, Sept. 23, *illus.*; *Railroad and Engineering Journal*, Oct., 1892.
The Tower Bridge: approaches in Horselydown. *Surveyor*, Aug. 11, 1892.
Superstructure of the Tower Bridge. *Engineering*, Sept. 22, 29th; Oct. 6, 13, 20, 1893.
The Tower Bridge. Institution of Civil Engineers, Proceedings, Vol. 113, pp. 117–151; abstracted in *Engineer*, Sept. 22; *Engineering Record*, Oct. 28, 1893.
The Tower Bridges. *Engineer*, Dec. 15; *Engineering Record*, Dec 30, 1893.
A bridge at Black-fryars. *Surveyor*, Sept. 27, 1894.
The Tower Bridges. *Engineering News*, Jan. 18; *Engineering Review*, July; *Scientific American* (*Supplement*), Aug. 25, 1894.
Frith (H.) The Tower Bridge. *Cassell's Family Magazine*, Aug., 1894.
Gordon (W. J.) The Tower Bridge: the gate of London. *Leisure Hour*, June, 1894.
Welch (Charles) History of the Tower Bridge . . . With a description of the Tower Bridge by J. W. Barry. 1894. 4to. 10349.i.18.
Welch (Charles) Short account of the Tower Bridge. . . . With a description of its construction by J. W. Barry. 1894. 8vo. 10350.bb.44.
Thames bridges [in and near London] *Engineer*, Jan. 4 *et seq.* 1895.
Glasspool (A. J.) London Bridge. *Architect*, Oct. 23, 1896.
Le Pont de la Tour à Londres. *Génie Civil*, Sept. 25, 1897.
Dredge (James) Thames bridges, from the Tower to the source, 1897. 4to.
***London:** *County Council.* An account of the bridges, tunnels, and ferry belonging to the L.C.C., together with the duties of the Council under the Thames River (Prevention of Floods) Acts. No. 368. 1897. 8vo, pp. 100.
The temporary Vauxhall Bridge. *Engineer*, May 13, 1898, *illus.*

Cook (Theodore Andrea) Thames and his bridges. *Cassell's Family Magazine*, June, 1898.

The new Vauxhall Bridge. *Builder*, Jan. 7, March 11, 1899, *illus.*

Proposed rebuilding of Lambeth Bridge. *Surveyor*, Dec. 14, 1900.

The widening of London Bridge. *Builder*, Dec. 8; *Engineer*, Dec. 21, 1900.

*The widening of London Bridge: details of a £100,000 scheme. *Municipal Journal*, Sept. 6; summary in *Surveyor*, Sept. 6, 1901.

Horsley (G. C.) The widening of London Bridge. *Architectural Review*, Nov. 1901, *illus.*

The case of Vauxhall Bridge. *Surveyor*, Dec. 5, 1902.

*New Vauxhall Bridge. *Municipal Journal*, Nov. 28, 1902, *illus.*

*Tower Bridge approach: opening the new thoroughfare. *Municipal Journal*, March 14, 1902, *map.*

Vauxhall Bridge. *Surveyor*, Nov. 14, 1902.

The widening of London Bridge. *Engineering*, Dec. 5, 1902.

Caröe (W. D.) Vauxhall Bridge. *Architectural Review*, Dec. 1902.

Glasspool (A. J.) London Bridge. *Great Thoughts*, Sept. 1902, *illus.*

Gordon (Helen C.) London Bridge: a great commercial highway. *English Illustrated Magazine*, Feb. 1902, *illus.*

City bridges census. *Surveyor*, Aug. 7, 1903.

Lambeth Bridge: proposed rebuilding. *Surveyor*, April 3, 1903.

*New bridge for London (at Vauxhall). *Municipal Journal*, May 29, 1903. *illus.*

New Vauxhall Bridge. *Engineer*, May 29, 1903, *illus.*

Southwark Bridge improvement. *Surveyor*, Sept. 11, 1903.

Shepstone (Harold J.) The widening of London Bridge. *Scientific American* (*Supplement*), Aug. 1, 1903, *illus.*

*London Bridge re-opened. *Municipal Journal*, April 1, 1904.

The new Vauxhall Bridge. *Engineering Review*, June, 1904.

*Three London needs [including a new bridge]. *Municipal Journal*, Jan. 13, 1905. *illus.*

*The new Vauxhall Bridge. *Municipal Journal*, June 8, 1906, *illus.*

The rebuilding of Blackfriars Bridge. *Surveyor*, Dec. 7, 1906.

Cole (William Bartholomew) The widening of London Bridge. Institution of Civil Engineers, Proceedings, 1906, *illus.*

The temporary Vauxhall Bridge. *Engineer*, April 26, 1907, *illus.*

The widening of Blackfriars Bridge. *Engineering*, Jan. 18, June 28, 1907, *illus.*

Copperthwaite (William Charles) Vauxhall Bridge, 1906. Institution of Civil Engineers, Proceedings, 1908, *illus.*

Pite (Beresford) The architecture of the bridges of London. Royal Institute of British Architects, *Journal*, May 23, 1908, *illus.*

*Blackfriars Bridge tramway and subway. *Tramway and Railway World*, Nov. 4, 1909, *illus.*

*Blackfriars Bridge widening. *Municipal Journal*, Sept. 17, 1909, *illus.*

The widening of Blackfriars Bridge. *Surveyor*, March 5, Sept. 10, 1909, *illus.*

(b) *Administration.*

Conjectures as to the most proper place between Scotland Yard and Vauxhall, for erecting a bridge across the river Thames, from Westminster to the opposite Surrey Shore. Humbly submitted to the consideration of the Honourable House of Commons. 1736? S.sh.fol. 357.c.3.(70).

Reasons against building a bridge over the Thames at Westminster. 1736. S.sh.fol. 357.c.3.(69).

A scheme for raising £60,000 without any tax upon the inhabitants of the City of Westminster, for the building of a bridge across the river of Thames . . . after the manner of the brick-bridge of Thoulouse. 1736 (?) S.sh.fol. 357.c.3.(76).

A short narrative of the proceedings of the gentlemen concerned in obtaining the Act for building a bridge at Westminster. And of the steps, which . . . the Commissioners, appointed by that Act, have taken to carry it into execution. In a letter to a member of Parliament in the country; together with his answer. 1737. 8vo. 8776.a.

Address to the Common Council of the City of London on the proposal for building a new bridge from Black-friars to the opposite shore. 1754. fol. 816.l.5.(30).

London: *Court of Common Council.* [Report from the Committee for considering the best plan, situation, and manner of constructing a bridge over the Thames, between London-Bridge and Westminster Bridge.] 1754. fol. 816.l.5.(20); 816.l.5.(23).

The expedience, utility and necessity of a new bridge at or near Blackfryars; all objections thereto fully answered, and the requisite dispositions exemplified. 1756. 8vo. 291.d.5.

***U.K. Govt.** Report from the Select Committee respecting the proposed plan for building Blackfriars Bridge. *Journals*, Vol. XXVII, p. 514. 1756.

Opinions as to the utility of the plan, and its explanation, as to the effect of a bridge so situated on the navigation; state of London Bridge; and plan for improving it by taking down the houses thereon; opinions as to its durability; evidence of an inspection of its foundations afforded by an exceedingly low tide in 1718; Bridge House Estate . . . recommendations in favour of a new bridge at Blackfriars; and of taking down the houses on London Bridge.

Plan for raising £300,000 for the purpose of compleating the bridge at Black-friars, and redeeming the toll thereon; embanking the north side of the river Thames, between Paul's Wharf and Milford Lane; redeeming the antient toll upon London Bridge, etc. 1767. fol. 101.i.59; 214.i.1.(110).

Observations on the Bill for making a new road from the south end of Black Friars Bridge. 1768. fol. 214.i.2.(63).

Observations on Black Fryars Bridge Road Bill by the inhabitants of Christ Church Parish. 1769. fol. 214.i.4.(96).

Observations on the Bill for making a new road from Black Fryars Bridge; with respect to the Parish of Christ Church. 1769. fol. 214.i.4.(97).

U.K. Govt. Acts relative to the roads leading from Westminster and Blackfriars Bridges (1750–1768), with Index. 1772. 8vo, pp. 103. 6146.aaa.22.(2).

***U.K. Govt.** Report from the Committee appointed to inquire into the best mode of providing sufficient accommodation for the increased trade and shipping of the Port of London. 1796. 1st Series, Vol. XIV, pp. 267 *et seq.*

pp. 422–431. Appendix Aaa. General description of a plan for giving to the Port of London the most extensive advantages of which it is capable, from its natural and geographical situation: by Willey Reveley, Architect. Deals with desirability and practicability of rebuilding London Bridge.

*—Two Reports from the Select Committee on further measures necessary for rendering more commodious, and for better regulating, the Port of London, and for the improvement of London Bridge. 1796–1801. 1st Series, Vol. XIV, pp. 543, 604.

*—Second Report from the Select Committee upon the improvement of the Port of London. 1799. 1st Series, Vol. XIV, pp. 461–541.

Deals with state of London Bridge, funds for repairing it, alterations since 1761 and their effects, and with other matters relating to port and trade. *Plates, plans, maps.*

*—Report from the Select Committee upon the improvement of the Port of London. 1800. 1st Series, Vol. XIV, pp. 543–635.

Deals with state of London Bridge and Blackfriars Bridge, with estimates and plans for rebuilding former. *Plates, maps and plans.*

*—Report on rebuilding London Bridge. 1801 (102) iii. 263.

Proposals for raising by subscription the sum of £400,000 in shares of £100 for the purpose of building and maintaining a bridge over the river Thames, from the south side . . . at or near . . . Horse Shoe Alley . . . to the bottom of Queen Street, Cheapside. 1810. fol. 1890.e.4.(57).

***U.K. Govt.** Report on petition of Messrs. Phelps, Troward and Bracebridge, respecting the Strand (afterwards called the Waterloo) Bridge. 1813 (211) iv. 729.

*—Act for altering, enlarging and extending the powers of an Act . . . for building a bridge over the river Thames at the Precinct of the Savoy. 1814. 54 Geo. III, c. 184. fol. 5805.f.10.

*—Report from the Select Committee on the state of London Bridge, and the necessity of rebuilding it. 1820 (304) iii. 27.

*—Accounts of sums raised for the repair and sustentation of Blackfriars Bridge; rents of lands belonging to the fund for watching lighting and paving the bridge; produce of Sunday tolls in ten years; and tolls received from non-freemen on passing into the City of London. 1821 (309) xxi. 181.

*—Report from the Committee on the state of London Bridge, with evidence taken in 1820. 1821 (569, 609) v. 281, 415.

***Gwilt (Joseph)** Conduct of the Corporation of the City of London considered, in respect of the designs submitted to it for rebuilding London Bridge, in a letter to George Holme Sumner, Esq., M.P., by an architect. 1823. 8vo, pp. 40.

***U.K. Govt.** Act for the rebuilding of London Bridge, and for improving and making suitable approaches thereto. 1823. 4 Geo. III, c. 50.

*—Account of income and expenditure of Putney Bridge. 1825 (165) xx. 209.

*—Act to authorize the Lords Commissioners of H.M. Treasury to advance money out of the Consolidated Fund towards the expenses of rebuilding London Bridge. 1826. 7 Geo. IV, c. 40.

*U.K. Govt. London Bridge Approaches Bill; appendix to minutes of evidence taken before Lords Committee to whom the Bill was committed. 1829. Fol., pp. 326–886, *plans*.

*—Estimate of the expense to be incurred under the Waterloo Bridge New Street Bill, distinguishing the amounts to be borne by the public and by private parties. 1831 (71) xiii. 307.

*—Report presented to the Corporation of London by the committee for rebuilding London Bridge, by Thomas Telford, James Walker, W. T. Clarke, Sir J. Rennie, and Messrs. Jolliffe & Banks, relative to the stability of New London Bridge. 1832 (61) xlv. 99.

*—Report from the Select Committee on Blackfriars Bridge, with minutes of evidence. 1836 (418) xx. 67.

*—Report from the Select Committee on the Improvement of the Metropolis, relative to the purchase of the interest of Waterloo Bridge, in order to its being opened to the public toll-free. 1836 (517) xx. 1.

*—Amount received under the Acts, 10 Geo. IV, c. 136, and 11 Geo. IV. c. 64, for defraying the charge of making the approaches to London Bridge in each year since the passing those Acts, distinguishing the total sums received under the several heads of taxation or contribution from the City of London, from which the said receipts have been received. 1838 (418, Appx.) xvi. 7.

*—London Bridge approaches. Total amount of incumbrances charged upon the funds continued and appropriated by the Acts, 10 Geo. IV, c. 136, and 11 Geo. IV, c. 64, which have been discharged up to the present time, and the amount remaining to be discharged, together with an estimate of the time within which the remaining incumbrances may probably be paid off, supposing the produce of the funds to continue to be the same as on the average of the last three years. 1838 (418, Appx.) xvi. 7.

*—Report from the Select Committee on the Improvement of the Metropolis, relative to the purchase of the interest of the Southwark, Vauxhall, and Waterloo Bridges, in order to their being opened to the public toll-free. 1841 (398) ix. 601.

*—Bill for regulating the priorities of monies authorized to be charged on a fund called "The London Bridge Approaches Fund." 1842 (375) iii. 73.

*—Act 5 and 6 Vict., c. 64.

*—Report from the Select Committee on Westminster Bridge, together with the minutes of evidence, appendix and plans. 1844 (477) vi. 663.

Contains reports of Telford, Cubitt, Swinburne, Rendel, Walker, and Burgess, on state of foundations; also rent-roll of Westminster Bridge estates.

*—Return of the sums of money expended and to be expended in the alterations and repairs of Westminster Bridge, and the probable cost of the completion thereof; also of the income arising from the property belonging to the commission. 1844 (267) xxxii. 983.

*—Reports [3] from the Select Committee appointed to consider the present state of Westminster Bridge and the New Palace at Westminster. 1846 (177, 349, 574) xv. 269, 273, 277.

*—Various accounts connected with management and expense of Westminster Bridge. 1846 (in 574) xv. 467.

*—Bill to vary the priorities of the charges made on the London Bridge Approaches Fund, and to give further indemnity to the land revenues of the Crown. 1847 (607) xi. 285.

*—Act 10 and 11 Vict., c. 115.

*U.K. Govt. Bill to amend an Act of the last session for varying the priorities of charges made on "The London Bridge Approaches Fund," and to facilitate the completion of certain improvements in the City of Westminster. 1848 (574) vi. 523.

*—Act 11 and 12 Vict., c. 124.

*—Bill to authorize further charges on the London Bridge Approaches Fund, for the completion of certain improvements in the Metroplis, the Metropolis. 1850 (680) iii. 601.

*—Act 13 and 14 Vict., c. 103.

*—Report from the Select Committee on Westminster Temporary Bridge Bill, together with the proceedings of the committee, minutes of evidence, appendix and index. 1850 (609) xix. 655.

*—Copy of letter from Mr. James Walker to the Commissioners of Westminster Bridge, on the present condition of the bridge. 1852 (414) xlii. 295.

*—Report of the commissioners appointed to consider the best and most convenient site for a new bridge at Westminster, with minutes of evidence and plans. 1852 [1475] xviii. 605.

*—Account of the various items composing the total amount of the London Bridge Approaches Fund, sources of income, periods at which such sources of income will expire, amount of incumbrances, etc. 1853 (187–I) ci. 17.

*—Bill to transfer Westminster Bridge and the estates of the Commissioners of Westminster Bridge to the Commissioners of H.M. Works and Public Buildings, and to enable such last-mentioned commissioners to remove the present bridge, and to build a new bridge on or near the site thereof. 1853 (500) vii. 495; amended by Select Committee, (621) vii. 511.

*—Act 16 and 17 Vict., c. 46.

*—London Bridge approaches. Ground rents, to whom paid, leases granted, amount of ground rents sold, and to what purpose applied. 1853 (916) xxii. 323.

*—Minutes of evidence taken before the Select Committee on the Westminster Bridge Bill, with the proceedings of the Committee. 1853 (622) xxxix. 467.

*—Correspondence, tenders, and contracts, with reference to the rebuilding of Westminster Bridge. 1854 (335) lxvii. 407.

*—Report from the engineer as to the progress and state of the new bridge at Westminster. 1855 (347) liii. 407.

*—Report from the Select Committee on New Westminster Bridge, with the proceedings, minutes of evidence, appendix, and index. 1856 (389) xiv. 225.

*—Report to the First Commissioner of Public Works by Messrs. Rendel & Simpson, civil engineers, on New Westminster Bridge, and plans. 1856 (318) lii. 205.

*—Return showing the amount expended year by year on Westminster Bridge and the approaches since the report of the committee of 1856, fund from which defrayed, estimated expenditure for completion, correspondence, etc. 1856 (576) xl. 629.

*—Bill to repeal so much of the Act of 9 and 10 Vict., c. 39, as authorizes a toll to be taken for foot passengers on the bridge now erecting across the River Thames pursuant to such act. 1857 (133, Sess. 2) i. 327.

*—Report from the Select Committee on the Chelsea Bridge Bill, with the proceedings and minutes of evidence. 1857 (250, Sess. 2) ix. 27.

*—Report from the Select Committee on Westminster Bridge, with the proceedings, minutes of evidence and plans. 1857 (246, Sess. 2) ix. 703.

*U.K. Govt. Bill to amend the Act of 9 and 10 Vict., c. 39, and abolish foot-passenger tolls on Chelsea Bridge after payment of the sum of £98,777 10s. 6d. 1858 (79) i. 313.

*—Act 21 and 22 Vict., c. 66.

—Amount of tolls collected at Chelsea New Bridge [year March—Feb.] 1859 *et seq.*

* 1858–59—1859 (129, Sess. 1) xiv. 79.

* 1859–60, with amount of principal and interest owing, land held and disposed of, expenses incurred, etc.—1860 (465) xxxix. 321.

1860–61—1861 (383) l. 727.

* 1861–62—1862 (433) xxix. 237.

* 1862–1864—1865 (148) xxx. 201.

*—Bill to empower the Commissioners of H.M. Works and Public Buildings to acquire additional space for the western approach to Westminster New Bridge. 1859 (100, Sess. 1) ii. 927; (48, Sess. 2) ii. 499; amended by Select Committee (65, Sess. 2) ii. 507.

*—Return showing the amount expended on Westminster Bridge and the approaches since Aug. 6th, 1860; fund from which defrayed, estimated expenditure for completion, correspondence, etc. 1861 (396) xxxv. 531.

*—Reports by engineers, during the last three years respecting the strength of Chelsea Bridge. 1862 (506) xxix. 239.

*—Return of the amount expended on Westminster Bridge to July 14th, 1862, stating separately the amount paid to the contractors and to the other parties, and amount expended on the approaches, and fund from which expenditure supplied. 1862 (490) xxxi. 585.

*—Return showing the sums advanced from and repaid under the authority of the Act 7 Geo. IV, c. 40, for rebuilding London Bridge, date and amount of each advance, amount of annuity payable half-yearly in liquidation of each advance, sums repaid and balances outstanding on Dec. 31st, 1861. 1862 (62) xxx. 495.

*—Bill for the better regulation of the traffic on Westminster Bridge, and for the prevention of obstructions thereon. 1864 (205) iv. 657.

*—Act 27 and 28 Vict., c. 88.

*—Bill to facilitate the traffic of the metropolis by improving the communications across the Thames. 1864 (129) iii. 35.

*—Bill to abolish the toll taken for foot passengers passing over or on Chelsea Bridge. 1865 (74) i. 103.

*—Return of amount of tolls annually collected on Chelsea Bridge, with expenses of collection, repairs, and maintenance, including police, lighting, water, etc., yearly, 1858 to March 31st, 1864. 1865 (197) xxx. 203.

*—Special report from the Select Committee on the Metropolitan Toll Bridges Bill and Chelsea Bridge Toll Abolition Bill, with the proceedings, minutes of evidence, and appendix. 1865 (380) viii. 119.

—Reports [2] from the Select Committee on Hungerford Bridge and Wellington Street Viaduct. 1869.

1st, with the proceedings, (200) x. 1.; 2nd, with the proceedings, minutes of evidence, appendix, and index to the two reports, (387) x. 185.

—Returns of amount of the tolls annually collected on Chelsea New Bridge since its opening in 1858; cost of collection, repairs, etc., in each year; quantity of land originally reserved for building purposes in and round Battersea Park, etc. 1869 (165) li. 573.

U.K. Govt. Bill to amend the acts relating to Chelsea Bridge. 1875 (249) i. 333.

—Bill to provide for throwing open for the free use of the public the present toll bridges connecting the counties of Middlesex and Surrey across the River Thames. 1876 (77) vii. 239; as amended in Select Committee (219) vii. 249.

*—Report from the Select Committee appointed to take into consideration the freeing of the remaining toll-paying bridges over the Thames, with the proceedings of the committee, minutes of evidence, appendix, and index. 1876 (244) xiv. 435.

—Report from the Select Committee on the Toll Bridges (River Thames) Bill; together with the proceedings of the committee and minutes of evidence. 1876 (328) xiv. 555.

—Return of the sums expended by the Corporation of London out of their bridge estate for the erection of London Bridge; maintenance during the present century; the purchase of Southwark Bridge, maintenance since purchase; the erection of Blackfriars Bridge; maintenance since charged on the Bridge estates. 1876 (143) lxiii. 511.

—Bill to provide for throwing open for the free use of the public certain toll bridges within the metropolis. 1877 (18) iv. 107; as amended by Select Committee (131) iv. 123; Lords' amendments (239) iv. 143.

—Report from the Select Committee on the Metropolis Toll Bridges Bill; together with the proceedings of the committee and minutes of evidence. 1877 (156) xiv. 1.

Webb (Edward Brainerd) and **Bolland (James)** London Bridge. Shall London Bridge be widened, or shall a new bridge be built near the Tower? 1877. 8vo. 7820.ff.2.

London: *Metropolitan Board of Works.* Proposed bridge over the Thames below London Bridge: report by Sir J. W. Bazalgette. 1878. 8vo, pp. 19, *plans.* 8767.c.15.

Municipal reform: an enquiry into the conduct of the Metropolitan Board of Works in connection with the "Tower High-Level Bridge (Metropolis) Bill." Digest of evidence as taken. 1882. 8vo, pp. ix, 112. 8248.ccc.3.

Proposed Thames bridge and subway. *Scientific American* (*Supplement*, March 8, 1884.

U.K. Govt. Report from the Select Committee on the Corporation of London Tower Bridge Bill; with the proceedings, evidence, appendix, and index. 1885 (228) viii. 47.

—Return showing the amount expended by the joint committee of the Corporation of London and the Metropolitan Board of Works in freeing the Kew and other bridges, giving in detail the amount for freeing each bridge and the date of the same; also the mode in which the money required for the same was borrowed upon the security of the coal dues for 1889, the rate of interest paid on the loans, and the charge which will ultimately fall upon the coal dues of 1889 in respect of these transactions. 1888 (47) lxxxi. 587.

The bridges of the Thames: how the City fought in Parliament for a monopoly. *London*, July 8, 1897.

Philpott (Hugh B.) The rebuilding of London Bridge. *Pall Mall Magazine*, Dec. 1901, *illus.*

London Bridge widening. *Surveyor*, Nov. 28, 1902.

Parkinson (R. M.) The architectural features of the arched bridges over the Thames. *Surveyor*, March 22, 29; April 5, 1907, *illus.*

Welch (Charles) City bridges and the Bridge House Trust. *Local Government Review*, Nov., Dec. 1909.

4. Pavements.

London: *Commissioners of Sewers.* Rules and directions prescribed and made for the pitching and levelling the streets and lanes of the City of London, for the more easie current and conveyance away of the waters thereof . . . 1667. S.sh.fol. 816.m.9.(14).

***U.K. Govt.** Report on the state of the pavement of the metropolis. 1816 (159) v. 417.

Robertson (John Clinton) Practical instructions for the improvement of the carriageway pavement of London, deduced from an examination of the . . . plans proposed . . . by . . . MacAdam. 1827. 8vo. *Glasgow University Library*; T.1232.10.

***U.K. Govt.** Sums expended under Acts 5 and 6 Geo. IV, in converting Regent Street, Whitehall and Palace Yard streets into broken stone roads; expense incurred in maintaining these roads in repair, 1826; and showing the number of lineal yards and superficial square yards in each several district. 1827 (315) xx. 585.

Law (Henry) Memoir on the several operations and the construction of the Thames Tunnel by Sir I. Brunel. Part 1. 1857. 4to, *illus.* 8775.f.34.

Society for the Encouragement of Arts, Manufactures, and Commerce. Proceedings of a committee appointed by the council to report upon the best way of dealing with the Thames Embankment. 1869. 8vo. Ac.4470/15.(4).

London: *Metropolitan Board of Works.* Report on the economy of road-maintenance and horse-draught through steam road-rolling, with special reference to the metropolis. By Frederick Arthur Paget. 1870. 8vo, pp. vi, 69. C.T.295.(1).

—(2nd ed.) 1870. Pp. vi, 70. C.T.326.(1).

Haywood (Wm) Report to the . . . Commissioners of Sewers of the City of London on accidents to horses on carriage-way pavements. 1837. 8vo, pp. 145, *map.*

London: *Metropolitan Board of Works.* Abstract by engineer relative to amount of carriage and horse traffic passing along the Victoria Embankment and Northumberland Avenue. 1876.

Allnutt (Henry) Wood pavements, as carried out on Kensington High Road, Chelsea, etc.; being a description of the method and cost of laying the blocks, etc. 1880. 8vo, pp. 24. 8768.bbb.13.(9).

Flower (Edward Fordham) The stones of London; or, Macadam *v.* Vestries. 1880. 8vo, pp. 31. 8767.c.16.

Bedell. Wood pavements in London. *Engineering News*, July 5, 1884.

Kerr. Wood paving in London. *Engineering News*, July 19, 1884.

Stayton (George) Wood pavements in London streets. *American Engineer*, June 27; *Engineering News*, Nov. 22, 29, Dec. 6, 13, *map*; Institution of Civil Engineers, Vol. 78. 1884.

Bridgman (H. H.) Street re-alignment of Central London. 1886. 8vo, pp. 87, *plans.* 10350.ee.18.

Westgarth (William) (*ed.*) Essays on street re-alignment . . . of Central London. 1886. 8vo, pp. vi, 276. 10349.ff.30.

Haywood (Thomas) Street pavements in London. *Sanitary Engineer*, Aug. 27, 1887.

Stayton (George H.) Wood pavements in London. *Sanitary Engineer*, Aug. 20, 1887.

Gordon (W. J.) The cleansing of London. *Leisure Hour*, Vol. 38. 1889.

Strachan. Construction and repair of roads in London. *Engineering News*, April 13, 1889.

Cost of maintaining asphalt pavements in London. *Engineering Record*, Jan. 18, 1890.

Repairing of the Strand. *Surveyor*, Sept. 21, 1893.

Hardwood as a paving material. *Surveyor*, April 11, 1894.

London streets in winter [cleaning]. *Surveyor*, Jan. 11, 1894.

Pitch and cement grouting. *Surveyor*, Oct. 25, 1894.

London: St. Pancras Vestry. Report of the Engineer on pitch and cement grouting for street pavements. 1894.

Mason (C.) Carriage-way pavements, with special reference to what has recently been done in the Strand, Long Acre, etc. Assn. of Municipal and County Engineers and Surveyors, Proceedings, Vol. 20, pp. 68–77. 1894.

Thompson (A.) Carriage-way pavements in London. *Surveyor*, Dec. 13, 1894.

London: St. Martin's-in-the-Fields Vestry. Report by the Surveyor as to the use of hardwood as a paving material. 1895.

Blair (W. N.) Notes on the wear of hardwood paving and the weight of traffic thereon. Assn. of Municipal and County Engineers and Surveyors, Proceedings, Vol. 22, pp. 85–90; *Surveyor*, Feb. 28, 1896.

Norrington (James P.) Wood paving (in London). *Surveyor*, March 6, 1896.

Fleet Street repaved. *Surveyor*, Sept. 3, 1897.

Clinker paving in Rotherhithe. *Surveyor*, Oct. 19, 1900.

The condition of London streets; watering, etc.; discussion at the Sanitary Institute. *Surveyor*, Jan. 19, Feb. 23, 1900.

Paving trials of a new wood in London. *Surveyor*, July 13, 1900.

Street cleaning in London. *Engineering Record*, March 10, 1900.

Street paving in large towns: trials of a new wood in London *Surveyor*, July 13, 1900.

Blair (W. Nisbet) The insanitary condition of London Streets. *Journal of the Sanitary Institute*, July, 1900.

Wade (G.) The street-makers of London. *Ludgate*, Feb. 1900.

The City of Westminster: City Engineer's report on street cleansing. *Surveyor*, May 3, 1901.

Metropolitan paving materials. *Surveyor*, Nov. 1, 1901.

A new street cleansing machine: an inspection by London local authorities. *Municipal Journal*, Oct. 18, 1901, *illus.*

Street cleansing in London. *Surveyor*, March 8, May 3, 1901.

Wood paving in London. *U.S.A. Consular Reports*, April 26, 1901.

The viagraph on London streets. *Surveyor*, March 7, 1902.

London street paving. *Surveyor*, Jan. 16, 1903.

Wood paving tests (at Camberwell). *Surveyor*, March 20, 1902.

London street paving: report of the (Metropolitan Paving) Committee. *Surveyor*, April 1, 1904.

*Street paving in London: what proves the best material. *Municipal Journal*, March 25, 1904.

Metropolitan Committee on materials and means of paving the streets of London. Annual reports, 1903–4 *et seq.*

*London paving. *Municipal Journal*, May 4, 1906.

***Swinton (G. S. C.)** London traffic. *Royal Society of Arts Journal*, March 2, 1906.

Waterhouse (Paul) Some observations on the report of the Royal Commission on London Traffic. *Royal Institute of British Architects Journal*, May 26, June 16, 1906, *maps*.

The asphalt pavement on the Thames Embankment. *Engineering Record*, Aug. 24, 1907, *illus*.

Street paving in London. *Surveyor*, Apr. 17, 1908.

Ionides (S. A.) Compressed rock asphalt used on London roadways. *Mining and Scientific Press*, Feb. 6, 1908, *illus*.

*Street paving; further investigations by Metropolitan Committee. *Municipal Journal*, May 14, 1909.

The Victoria Embankment pavement. *Engineering Record*, Oct. 22, 1910.

Cadoux (Gaston) L'accroissement de la circulation à Londres et à Paris. *Journal de la Société Statistique de Paris*, Oct. 1910. pp. 381–392.

***Welch (Charles)** London streets and London paviours. *Local Government Review*, June, 1910.

WALES

1. History and Description.

Giraldus [de Barry], Cambrensis. Itinerarium Cambriae, seu Baldvini Cantuar. Archiepiscopi per Walliam legationis, descriptio, cum annotationibus D. Poveli. [1186–89.] (Anglica, Hibernica, Normannica, Cambrica, a veteribus scripta; edited by William Camden). 1602. fol. 1325.k.

—Historical works. Containing [*inter alia*] the Itinerary through Wales, and the description of Wales, translated by Sir R. C. Hoare, revised and edited with additional notes, by T. Wright. (Bohn's Antiquarian Library). 1847. 8vo. 2500.a.

A gentleman's tour through Monmouthshire and Wales. 1775. 8vo. T. 404.(1).

Pennant (Thomas) A tour in Wales, 1770–[1773], 1778–81. 4to. 2 vols. 982.e.8–9.

—(Another ed.) 1784. 187.a.16.

—(Another ed.) 1810. 8vo., 3vols. 10369.g.17.

—(Another ed.) 1883, with notes by J. Rhys and life of Pennant by W. T. Parkin.. 8vo., 3 vols. 10369.d.2.

A tour in Wales. MDCCLXXIII. [By T. Pennant ?]. Dublin. 1779. 8vo. 10369.d.

Circular tour for pedestrians from Chester through North Wales. 1780 (?) 24mo, *maps*.

—(Another ed.) 1802. 32mo. 10369.a.

The road from the Port of Milford to the Severn. 1792.

Baker (James) Picturesque guide through Wales and the Marches. 1795. (2nd ed.) Worcester. 4to., 3 vols. 286.i.29–31.

Maudet de Penhouët (A. B. L.) Letters describing a tour through part of South Wales, by a pedestrian traveller. With views, designed and etched by the author. 1797. 4to. 792.h.21.

Cambrian tourist; or, post-chaise companion through Wales . . . 5th [i.e 4th.] ed. Salisbury. 1814. 12mo, pp. 240. 10369.c.11.

—(5th ed.) 1821, London. 12mo. 10369.d.3.

—(6th ed.) 1828, London. 10369.a.39.

Broster (John) The pedestrian's tour through North Wales. 1814. (2nd ed.) 32mo, *plates and maps*. G.16358.

Pring (Joseph) Particulars of the Grand Suspension Bridge erected over the Straits of Menai . . . designed by, and built under the . . . direction of Thomas Telford. Bangor. 1826. 12mo. 10368.aa.36 (3).

Provis (William Alexander) An historical and descriptive account of the Suspension Bridge over the Menai Strait in North Wales; with a . . . notice of Conway Bridge. From designs by T. Telford. 1828. Fol. 1804.d.

Lewis (Samuel) Topographical dictionary of Wales. . . 1833. 4to, 2 vols. 10369.l.3.
—(2nd ed.) 1840. 10350.h.6.
—(3rd ed.) 1843. 10348.k.7.
—(4th ed.) 1849. 2061.d.
Cliffe (Charles Frederick) The book of South Wales, the Bristol Channel, Monmouthshire, and the Wye. 1847. 16mo. 797.a.16.
—(2nd ed.) 1848. 8vo. 1303.a.
—(3rd ed.) 1854. Revised by G. Roberts. 8vo. 797.a.17.
*General description of the Britannia and Conway Tubular Bridges by a resident assistant. [Edwin Clark ?] 1849. 8vo, pp. 34. 8765.b.
***Fairbairn (Thomas)** Britannia and Conway Tubular Bridges. Truths and tubes on self-supporting principles; a few words in reply to the author of "Highways and Dry-ways." 1829. 12mo. 8765.a.
Head (Sir Francis Bond) High-ways and dry-ways; or, the Britannia and Conway Tubular Bridges. 1829. 16mo. 8765.a.46.
Clark (Edwin) The Britannia and Conway Tubular Bridges, with general inquiries on beams and on the properties of materials used in construction . . Published under the supervision of R. Stephenson. 1850. 8vo, 2 vols., fol. atlas. 1262.f. Tab. 1326.b.
Cliffe (Charles Frederick) The book of North Wales, scenery, antiquities, highways and byways, lakes, streams, and railways. 1850. 8vo. 1303a.
—(2nd ed.) 1851. 8vo. 10370.a.36.
The Abergeldie Suspension Bridge. *Engineer*, Aug. 7, 1885.
Harper (C. G.) The Marches of Wales; notes and impressions on the Welsh borders, from the Severn Sea to the Sands of Dee. 1894. 8vo, pp. xiii, 368. 114 *illus.* 10358.h.22.
Hartley (C. A.) Coaching guide to North Wales. Llandudno. 1894. 8vo, pp. 43. 10348.c.26 (6).
Concrete bridge over the Towy. *Engineer*, July 22, 1898.
Stretton (Clement E.) History of the Britannia Tubular Bridge. Leeds. 1900. 8vo.
Aber Swing Bridge, Carnarvon. *Engineer*, Aug. 2, 1901, *illus.*
The Roman road on Blackstone Edge. *Surveyor*, Feb. 8, 1901, *illus.*
Tal-y-Cafn Bridge. *Engineering*, July 12, Aug. 2, 1901, *illus.*
Bradley (A. G.) Highways and byways in North Wales. 1901.
Coventry (W. B.) History of Pont-y-ty-Pridd, with an investigation of the stability of the arch. 1901. 4to.
Bridge over the Llyfni (at Nantile). *Engineer*, Aug. 22, 1902, *illus.*
*Something new in bridges (transporter bridge at Newport, Mon.). *Municipal Journal*, Jan. 16, 1903, *illus.*
Bradley (A. G.) Highways and byways in South Wales. 1903. 8vo, pp. 418. 10368.dd.10.
Conway Suspension Bridge. *Engineer*, May 20, 1904.
North Wales cyclist's guide. Bradford. 1904. 8vo, pp. 96. 10369.bbb.24.
*The Newport Transporter Bridge. *Municipal Journal*, April 21, 1905.
*Bridging the Usk [at Newport] *Municipal Journal*, Sept. 14, 1906, *illus.*
The Newport Transporter Bridge. *Tramway and Railway World*, Sept. 6; *Engineer*, Sept. 14, 1906, *illus.*
Newport Transporter Bridge opened. *Surveyor*, Sept. 14, 1906, *illus.*
New roadway bridge near Abergavenny. *Surveyor*, Aug. 30, 1907, *suppl., illus.*
The Roman road in Wales: by "**Spectator.**" *Outlook*, July 30, 1910.

2. Administration.

*__England: Government.__ Act for the re-edifying of Cardiff Bridge, in the county of Glamorgan. 1580. 23 Eliz., c. 11.

*—Act for the repairing of the bridges of Newport and Carlion in the county of Monmouth. 1597. 39 Eliz., c. 23.

*__U.K. Govt.__ Report on the proposed bridge over the Menai. 1810 (352) iv. 41.

*—Report on the proposed bridge over the Menai, with plans for constructing the bridge. 1811(197) iii. 801.

*—Papers relating to building a bridge near Bangor Ferry. 1819 (60) v. 311.

*—Bill for applying a certain sum of money out of the Consolidated Fund for the purpose of building a bridge over the River Conway, in the county of Carnarvon, and for imposing additional rates of postage on letters and packets conveyed over the said bridge. 1849 (419) ii. 671.

*—Act 1 and 2 Geo. IV, c. 38.

*—Estimate of the expense of completing the bridge over the Menai Strait, and the new road across the island of Anglesea, 1823. 1823 (429) xiii. 303, 307.

*—Sum advanced under Act 59 Geo. III, for building a bridge over the Menai Strait; and sums paid into the Exchequer by the Post-office towards the repayment thereof. 1823 (397) xiii. 319.

*—Copy of Postmaster-General's letter, upon the subject of the roads through South Wales; with copy of Mr. Telford's report thereon. 1826 (278) xi. 107.

*—Estimate of the sum which will be required for the purchase of Bangor Ferry, in lieu of which a bridge has been erected over the Menai Straits, under the authority of the Acts of 59 Geo. III, c. 48, and 4 Geo. IV, c. 74; for completing the building of a bridge over the River Conway, and for the purchase of Conway Ferry. 1826 (135) xx. 137.

*—Money paid by the Post-office towards repayment of the sum advanced for building the bridge over the Menai Strait. 1826 (66) xxi. 101.

*—Account of sums paid into the Exchequer arising from the additional duty on Irish letters, towards repayment of advances from the Consolidated Fund for the building the Menai and Conway Suspension Bridges. 1826–27 (292) xx. 583; 1828 (32) xxi. 527; 1829 (149) xxi. 107; 1830 (66) xxvii. 289; 1831 (188) xvii. 493.

*—Bill for empowering the Commissioners of H.M. Woods, Forests, and Land Revenues, Works and Buildings, to pay the net proceeds of the tolls of the Menai and Conway Bridges into the receipt of H.M. Exchequer at Westminster, to the account of the Consolidated Fund 1834 (485) ii. 727.

*—Act 4 and 5 Vict., c. 66.

*—Copy of report of Mr. W. Provis, 13th May, 1840, to the Commissioners of Woods and Forests, on the Menai Bridge. 1840 (418) xxix. 469.

*—Bill to consolidate and amend the law relating to turnpike trusts in South Wales. 1844 (427) iv. 739.

*—Act 7 and 8 Vict., c. 91.

*—Bill to exempt from toll lime conveyed on any turnpike-road in the principality of Wales. 1844 (163) iii. 61.

*—Report of Mr. Provis to the Commissioners of Woods and Forests, of Feb. 15th, on the Menai Bridge. 1844 (In 241) xiv. 503.

***U.K. Govt.** Report of the Commissioners of Inquiry for South Wales. 1844 [531] xvi. 77.

*—Bill to make certain further provision for the consolidation of turnpike trusts in South Wales. 1845 (418) vi. 239.

*—Act 8 and 9 Vict., c. 61.

—Statement of the income and expenditure of the turnpike roads in South Wales, with estimates for succeeding year. 1846–54.

*1845—1846 (642) xl. 551.
*1846—1847 (107) xliv. 563.
*1847—1847–48 (218) li. 363.
*1848—1849 (71) xlvi. 187.
*1849—1850 (100) xlix. 285.
*1850—1851 (85) xlviii. 147.
*1851—1852 (148) xliv. 447.
*1852—1853 (182) xcvii. 617.
*1853—1854 (83) lxiv. 311.

*—Bill for the further amendment of the laws relating to turnpike roads in South Wales. 1847 (555) iv. 377.

*—Act 10 and 11 Vict., c. 72.

*—Return of the total receipts, expenditure and debts of turnpike trusts in Wales, for each of the years 1834 to 1845 inclusive, under various heads. 1848 (493) li. 357.

*—Copy of the final report made to the Secretary of State by the Commissioners for consolidating and adjusting the turnpike trusts in South Wales, dated Sept. 29th, 1845. 1849 (105) xlvi. 355.

*—Statement of the experimental inquiries made to determine the strength of wrought-iron tubes, to supply data for the erection of the tubular bridges across the Menai Straits and the River Conway. 1849 (In 1123) xxix. 1.

*—Bill for the better management and control of the highways in South Wales. 1850 (93, 547) iii. 297, 307.

*—Bill for the better management and control of the highways in South Wales. 1851 (44) iii. 287.

*—Act 14 and 15 Vict., c. 16.

*—Return of the salary and expenses of the general superintendent of turnpike roads in South Wales, in each year from the passing of the Act 7 and 8 Vict., c. 91, and the source from which the payment is made. 1851 (601) xxxi. 525.

[Roberts (Samuel)] Letters on improvements, addressed to Landlords and Road Commissioners . . . By a Llanbrynmair Farmer. [*Signed* S. R.] Llanbrynmair. 1852. 12mo, pp. 59. 8206.a.41.(1).

***U.K. Govt.** Bill for extending the time limited for putting into execution the Act 14 and 15 Vict., for the better management and control of highways in South Wales. 1854 (29) iii. 65.

*—Act 17 and 18 Vict., c. 7.

*—Bill for the better management and control of the highways in South Wales. 1860 (139) iii. 665.

*—Act 23 and 24 Vict., c. 68.

*—Return from the surveyors of the districts comprised under the South Wales Highways Acts, of the mileage in each district, as furnished by the Clerk of the Llansawel district. 1861 (328) lvii. 465.

—Returns of the annual expenditure on the Menai and Conway bridges and of the tolls received since 31st March, 1864, and of the amount of debt due on each bridge, and debt paid off. 1872 (329) lii. 765.

U.K. Govt. Bill for the further amendment of the laws relating to turnpike roads in South Wales. 1875 (183) vii. 343.
*—Act 38 and 39 Vict., c. 35.
—Report by the general superintendent of county roads for South Wales, with reference to the receipts and expenditure on account of the turnpike roads in South Wales during 1875, and estimates for 1876. 1876 (144) lxv. 475.
—Table showing payments made from tolls and from county road rates in discharge of the debts to the Public Works Loan Commissioners in South Wales.
*1873—1876 [c. 1585] xxxi. 259.
*1874—1877 [c. 1865] xxxvii. 198.
*1875—1878 [c. 2130] xxxvii. Part I, 374.
*1876—1879 [c. 2372] xxviii. 158.
—Bill for authorizing the Commissioners of H.M. Treasury to compound the debt due to the Consolidated Fund in respect of Conway Bridge, and for other purposes relating thereto. 1878 (150) i. 429; Lords' amendments (248) i. 433.
—Bill to amend the law relating to highways in South Wales. 1878 (160) iii. 455; Lords' amendments (260) iii. 463.
*—Act 41 and 42 Vict., c. 34.
—Return of the debt due to the Treasury in respect of the loan on Conway Bridge, and arrears of interest. 1878 (171) xlvi. 155.
—Annual statement of receipts and expenditure of South Wales turnpike roads, and estimates for following year.
*1879—1880 (218) lxiv. 557.
*1880—1881 (230) lxxxi. 643.
1881—1882 (210) lxi. 415.
*—Return of the mileage and expenditure of turnpike districts in South Wales for 1878, and of highway districts for the year ended March, 25th, 1878. 1880 (78) lxiv. 551.
—Bill to enable county authorities in South Wales to take over and contribute towards certain bridges, and to remove doubts as to the liability to repair the highways over and adjoining certain bridges which have been rebuilt. 1881 (129) i. 385.
*—Act 44 and 45 Vict., c. 14.
—Bill to further amend the law relating to turnpike roads in South Wales. 1882 (101) vi. 661.
*—Act 45 and 46 Vict., c. 67.
—Bill to further amend the law relating to turnpike roads in South Wales. 1886 (260, Sess. 1) vi. 293; Lords' amendments (294, Sess. 1) vi. 297.
*—Act 49 and 50 Vict., c. 52.
—Return showing the total cost per annum of the repairs and maintenance of the Menai Bridge, distinguishing the amount defrayed from tolls and votes of Parliament. 1886 (248, Sess. 1) lii. 713.
—Bill to amend an act intituled, "An act to further amend the law relating to turnpike roads in South Wales." 1887 (333) vi. 567.
—Report, dated November 20th, 1886, by Mr. Baker, on the condition of the Menai Bridge. 1890 (161) lviii. 657.
The width of main roads: a Carmarthen County Surveyor's report. *Surveyor*, Nov. 11, 1904.
***Merioneth:** *County Council*. Recommendations relating to new scheme for maintenance of county roads, and appointment of road foremen. 1911. (Agenda, Sept., pp. 11–13).

SCOTLAND

1. History and Description.

Pennant (Thomas) A tour in Scotland, 1769. Chester. 1771. 8vo. 979.i.5.
—(2nd ed.) 1772. 979.i.6.
—(Supplement) 1772. B.328.(6).
—(3rd ed.) 1774. 4to. 567.c.2.
—(Appendix.) 1774. 10369.g.6.
—(4th ed.) 1775. 1303.g.9.
—(5th ed.) 1790. 2066.b.
—(Another ed.) 1798. 12mo. 10348.a.

Taylor (George) and **Skinner (Andrew)** Survey of the roads of Scotland. *Plans.* Edinburgh. 1775 (?). 8vo. 10369.bb.

—The traveller's pocket-book, or an abstract of Taylor and Skinner's survey of the roads of Scotland. 1776. 24mo. *map.* 797.a.1.

Armstrong (Mostyn John) Scotch atlas; or, description of the kingdom of Scotland, divided into counties, with the subdivisions of sheriffdoms. 1777. 4to. 579.h.5.

Paterson (Daniel, *Lieut.-Col.*) New and accurate description of all the direct and principal roads of Scotland. 1781 (?). 8vo.
—5th ed., 1781. 577.e.6.(2).

Armstrong (Mostyn John) Roads between Glasgow and Edinburgh. 1783. *Mitchell Library, Glasgow.*

Scotland delineated; or, a geographical description of every shire in Scotland, including the northern and western islands. Edinburgh. 1791. 8vo. 287.b.23.
—(2nd ed.) 1799. 12mo. 10369.c.31.

***Sinclair (Sir John)** Statistical account of Scotland; drawn up from the communications of the ministers of the different parishes. Edinburgh. 1791–99. 8vo, 21 vols. 287.d.1.

The traveller's guide; or, a topographical description of Scotland, and of the islands belonging to it. Edinburgh. 1798. 8vo, pp. xxiv, 317. 10370.bb.15.
—(6th ed.) 1814. 12mo, 2 vols. 10369.c.33.
—(7th ed.) 1818. 12mo, 2 vols. 797.c.28, 29.
—(9th ed.) 1829. 12mo, pp. xii, 479, 192. 797.c.7.

Murray (Sir Patrick) Memorial respecting the road from Yetts of Muckhart through Glendevon and Gleneagles, into Strathearn, and the branches in continuation thereof, towards Bishop's Bridge, the Bridge of Kinkell, the Bridge of Dollorie, the Bridge of Auchlone and the Abbey Bridge of Inchaffray. 1814. 8vo, pp. 77. *Patent Office Library.*

Principal roads through Scotland, from Edinburgh, Glasgow, etc. . . . Great roads to London . . . 1823. (2nd ed.) Edinburgh. 12mo. 10369.a.37.

Leigh (Samuel) Leigh's new pocket road book of Scotland. . . 1829. 12mo. 797.c.5.
—(3rd ed.) 1839. 797.c.6.
Flint (James) Report on the proposed new road from Perth to Elgin, Grantown, Nairn and Inverness. 1832. *Glasgow University Library.*
***Cary (John)** New travelling sheet-map of Scotland, from the latest authorities, on which are laid down the whole of the turnpike roads and every object essential to the traveller. 1837. 26 in. by 34½ in.; scale, 1 in.=10 miles.
Campbell (John Francis) The parallel roads of Lochaber. 1877. 8vo, ff. 28. 010370.f.4.
Macfadzean (James) The parallel roads of Glenroy: their origin, and relation to the glacial period and deluge. Edinburgh. 1883. 8vo, pp. xxi, 149. 7202.c.5.
Howard (C.) Itinerary and road book of Scotland. . . 1886. 8vo, pp. 204. 10369.aaa.33.
Dalmarnock Bridge, Glasgow. *Engineering*, March 28, 1890. *illus.*
Brayshay (G. Rowland) Specially surveyed roads in Scotland: being a guide for cyclists, pedestrians and sportsmen . . . With index, map of the routes, and sectional touring map of Scotland. 1890. 8vo, pp. xv, ff. xxviii, pp. 32. 10369.ccc.7.
Scottish cyclists' road book. 1894 *et seq.* Glasgow. 8vo. P.P.2510.t.
Bridges in the Highlands (over Conon and Orrin, in Ross and Cromarty). *Surveyor*, Feb. 14, 1895.
The Drove-road, Scotland. *Macmillan's Magazine*, October, 1895.
New bridge over the Clyde (at Rutherglen). *Surveyor*, Aug. 14, 1896.
The new Waterloo Bridge over the River Ness at Inverness. *Engineer*, April 10, 1896, *illus.*
The premiated designs for the Edinburgh street reconstruction scheme (North Bridge). *British Architect*, Sept. 18, 1896.
Inglis (H. R. G.) The contour road book of Scotland. Edinburgh. 1896. 12mo, pp. 281. 010370.de.1.
Bridge over the River Don. *Engineer*, May 21, 1897, *illus.*
A building problem in Edinburgh [North Bridge approach]. *Architect*, Oct. 1, 1897.
New North Bridge, Edinburgh. *Surveyor*, Sept. 24, 1897.
Lennox (J.) Cyclists' road book and guide to the Scottish borders and Galloway. Edinburgh. 1898. 8vo, pp. 132. 10369.aa.27.
The new Glasgow bridge. *Architect*, April 14, 1899.
The "Royal" road book of Scotland. Edinburgh. 1899. 8vo, pp. 128. 10369.aa.28.
Concrete arch over the River Tay at Kinclaven. *Engineering*, May 12, 1905.
Restoration of the Auld Brig o' Ayr. *Engineering*, July 15, 1910, *illus.*
Freeston (C. L.) Cycling and automobilism in Scotland. Black's 1s. guide to Scotland. 1910. 010347.c.74.
***Encyclopædia Britannica** (11th ed.) Article "Scotland," section "Roads." 1911.
***Lennie (Alice B.)** Geographical description of the county of Sutherland. Part II. *Scottish Geographical Magazine*, XXVII, pp. 128–142. 1911.
Pp. 128–132 on communications. Map showing railways, motor-car routes, and mail-coach routes, on scale of 14 miles to 1 in.
Cross-river communication at Glasgow. *Engineering*, March 29, 1912, *map.*

2. Administration.

***Great Britain Govt.** Act for amending and making more effectual the laws for repairing the highways, bridges, and ferries in that part of Great Britain called Scotland. 1719. 5 Geo. I, c. 30.

*—Act for the better preservation of the turnpike roads in that part of Great Britain called Scotland. 1759. 32 Geo. II, c. 15.

Considerations on the Acts of Parliament relative to highways in Scotland, and on the new scheme of a tax in lieu of statute-labour, together with an abstract of these acts from 12th century downwards and a plan for a new general act. Edinburgh. 1764. 8vo.

Obseervations [*sic*] on the advantages arising to the public from good roads, particularly of the utility of a short . . . communication between the Firths of Forth and Clyde. 1766. 4to. 712.f.20

***Great Britain Govt.** Act for widening the highways in that part of Great Britain called Scotland. 1771. 11 Geo. III, c. 53.

*—Act for repairing the highways and bridges in the county of Fife. 1774. 14 Geo. III, c. 31.

*—Act for repairing the highways and bridges in the shire of Argyll. 1775. 15 Geo. III, c. 63.

*—Act for repairing the highways and bridges in the county of Wigton. 1778. 18 Geo. III, c. 7.

*—Act for repairing the highways and bridges in the county of Linlithgow and Bathgate. 1779. 19 Geo. III, c. 12.

*—Act for repairing the highways, bridges, and ferries in the county of Perth. 1785. 25 Geo. III, c. 13.

Berwick-on-Tweed. Report of William Dunbar and William Hall, Esq., with respect to a plan proposed at the committee meeting for the amendment of the highways in the Shire of Berwick. 1786.

Copy in Berwick municipal archives. Objects to turnpikes as inconvenient, leading to extortion, and likely to increase taxation. Suggests as alternative a rate on owners and occupiers.

***Great Britain Govt.** Act for repairing the highways and bridges in the county of Dumbarton. 26 Geo. III, c. 21.

*—Act for repairing certain roads in the county of Perth, and for explaining and amending an act of 25 Geo. III, for repairing the highways, bridges, and ferries, in the county of Perth. 1789. 29 Geo. III, c. 17.

*—Act for repairing the roads in the county of Forfar, and for regulating the statute labour within the same. 29 Geo. III, c. 20.

*—Act for making effectual the statute labour in the county of Renfrew, and for levying conversion money in lieu of labour in certain cases, and for otherwise regulatiing, making, and repairing high roads and bridges in the said county. 1792. 32 Geo. III, c. 68.

*—Act for making effectual the statute labour, and for levying conversion money in lieu of labour in certain cases, and for otherwise regulating, making, and repairing high roads and bridges in the county of Caithness. 1793. 36 Geo. III, c. 120.

*—Act for making effectual the statute labour in the shire of Inverness, and for levying conversion money in lieu of labour, and for otherwise regulating, making, and repairing highways and bridges in the said shire; and for improving, widening, and lighting the streets in the royal burgh of Inverness. 36 Geo. III, c. 118.

*—Act to continue and extend an act of 29 Geo. III, for repairing the roads in the county of Forfar, and for regulating the statute labour within the same; and for repairing several other roads in the said county, and for building a bridge over the river South Esk, near Finhaven. 1794. 34 Geo. III, c. 100.

***U.K. Govt.** Act for regulating and converting the statute labour in the county of Fife, and for more effectually making and repairing the highways within the said county. 1797. 37 Geo. III, c. 52.

*—Bill for granting to His Majesty the sum of £20,000, to be issued and applied towards making roads and building bridges in the Highlands of Scotland; and for enabling the proprietors of land in Scotland to charge their estates with a proportion of the expense of making and keeping in repair roads and bridges in the Highlands of Scotland. 1803 (117) i. 535.

*—Act 43 Geo. III, c. 80.

*—Mr. Telford's survey and report on the coasts and central Highlands of Scotland. 1803 (45) iv. 1.

*—Reports of commissioners under Act 43 Geo. III, for making roads and bridges in the Highlands. 1804–21.

*1st—1803–4 (108) v. 715.
*2nd—1805 (176) iii. 271.
*3rd—1807 (100) iii. 231.
*4th—1809 (167) iv. 1.
*5th—1810–11 (112) iv. 393.
*6th—1812–13 (110) v. 1.
*7th—1814–15 (205) iii. 427.
*8th—1817 (110) ix. 1.
*9th—1821 (432) x. 37.

Telford (Thomas) Report and estimates relative to a proposed road in Scotland from Kyle-Rhea in Inverness-shire to Killin in Perthshire by Rannoch Moor. 1810. 8vo. 10347.d.10.(1).

***U.K. Govt.** Bill for maintaining and keeping in repair roads made and bridges built in Scotland, under the authority of the Parliamentary Commissioners for Highland Roads and Bridges. 1810 (257) i. 395.

*—Act 50 Geo. III, c. 43.

*—Bill to prevent damage to bridges in Scotland from the floating of timber. 1813 (223) ii. 827.

*—Act 53 Geo. III, c. 117.

*—Bill to repeal the exemption from toll granted for carriages with more than two wheels, carrying the mail in Scotland; and for granting a rate of postage as an indemnity for the loss to the revenue of the Post Office from payment of such tolls. 1813 (216) ii. 823.

*—Act 53 Geo. III, c. 68.

*—Bill for maintaining and keeping in repair certain roads and bridges made in Scotland for the purpose of military communication; and for making more effectual provision for maintaining and repairing roads made, and bridges built, in Scotland, under the authority of the Parliamentary Commissioners for Highland Roads and Bridges. 1814 (58, 91, 213) i.

*—Act 54 Geo. III, c. 104.

—Estimate of the sum that may be wanted towards making roads and building bridges in the Highlands of Scotland. 1814–18.

*1813–14 (39) xi. 173.
*1814–15 (154) ix. 192.
*1816 (238) xii. 280.
*1817 (279) xiii. 273.
*1818 (68) xiii. 242.

*—Statement of the origin and extent of roads and bridges in the Highlands. 1814 (63) iii. 401.

*U.K. Govt. Bill to amend and explain an Act of 54 Geo. III, for maintaining and keeping in repair certain roads and bridges made in Scotland for the purpose of military communication; and for making more effectual provision for maintaining and repairing roads made and bridges built in Scotland, under the authority of the Parliamentary Commissioners for Highland Roads and Bridges. 1815 (174) i. 227.

*—Act 55 Geo. III, c. 121.

—Reports of Commissioners for maintaining and keeping in repair certain roads and bridges in the Highlands of Scotland. 1815–63.

*1st—(In 7th report on Highland Roads and Bridges)—1814–15 (205) iii. 458.
*2nd (in 8th report)—1816 (202) viii. 49.
*3rd (In 9th report)—1817 (110) ix. 48.
*4th—1818 (148) x. 53.
*5th—1819 (147) xi. 49.
*6th—1820 (19) vii. 45.
*7th (In 9th report on Highland Roads and Bridges)—1821 (432) x. 107.
*8th—1822 (120) viii. 363.
*9th—1823 (112) x. 1.
*10th—1824 (167) ix. 257.
*11th—1825 (150) xv. 29.
*12th—1826 (209) xi. 59.
*13th—1826–27 (208) vii. 107.
*14th—1828 (175) ix. 277.
*15th—1829 (114) v. 135.
*16th—1830 (181) xv. 87.
*17th—1830–31 (286) iv. 379.
*18th—1831–32 (345) xxiii. 521.
*19th—1833 (114) xvii. 405.
*20th—1834 (164) xl. 165.
*21st—1835 (91) xxxvi. 227.
*22nd—1836 (134) xxxvi. 423.
*23rd—1837 (159) xxxiii. 171.
*24th—1837–38 (235) xxxv. 75.
*25th—1839 (128) xx. 383.
*26th—1840 (172) xxviii. 431.
*27th—1841 (186) xii. 223.
*28th—1842 (128) xxv. 177.
*29th—1843 (117) xxix. 353.
*30th—1844 (152) xxxi. 249.
*31st—1846 (140) xxvi. 23.
*32nd—1846 (152) xxiii. 79.
*33rd—1847 (210) xxxiii. 289.
*34th—1847–48 (182) xxxvii. 167.
*35th—1849 (164) xxvii. 77.
*36th—1850 (162) xxx. 75.
*37th—1851 (141) xxix. 85.
*38th—1852 (193) xviii. 485.
*39th—1852–53 (274) xl. 629.
*40th—1854 (133) xix. 499.
*41st—1854–55 (337) xv. 481.
*42nd—1856 (113) xviii. 435
*43rd—1857 (156, Sess. 1) iv. 1.
*44th—1857–58 (148) xxxii. 317.
*45th—1859 (152, Sess. 1) xiii. 1.
*46th—1860 (165) xxxiv. 573.
*47th—1861 (122) xxxiii. 19.
*48th—1862 (127) xxviii. 339.
*49th—1863 (128) xxvi. 345.

*U.K. Govt. Report on estimate of sums wanted for making roads and bridges in the Highlands. 1816 (468) iv. 503.

*—Estimate of the sum required to pay retired allowances and gratuities to persons formerly employed on the military roads in Scotland. 1818 (307) xiii. 262.

*—Act to repeal two Acts of 54 and 55 Geo. III, for maintaining and keeping in repair certain roads and bridges in Scotland; to provide more effectually for that purpose; and for regulation of ferries in Scotland. 1819. 59 Geo. III, c. 135.

*—Bill to amend Acts respecting roads and bridges in the Highlands fo military communications. 1819 (208, 500) i. B.

*—Estimate of the sum required to pay retired allowances and gratuities to persons formerly employed on the military roads in Scotland. 1819 (47) xv. 245.

*—Estimate of sums wanted for roads and bridges in the Highlands. 1821 (603) xvi. 41.

*—Bill for the regulation of turnpike roads (Scotland). 1822 (266, 404) ii. 1057, 1121.

*—Report and estimate by Mr. Telford on the Morpeth and Edinburgh road. 1822 (166) viii. 409.

*U.K. Govt. Report from Select Committee on the communication with Scotland [Morpeth and Edinburgh road]. 1822 (506) viii. 381.
*—Act for maintaining in repair the military and Parliamentary roads and bridges in the Highlands of Scotland, and also certain ferry-piers and shipping-quays erected by the Commissioners for Highland Roads and Bridges. 1823. 4 Geo. IV, c. 56.
*—Act to rectify a mistake in an Act intituled "An Act for making and maintaining certain roads and bridges in the counties of Lanark and Dumbarton," in so far as relates to the application of certain Exchequer bills therein mentioned. 1823. 4 Geo. IV, c. 10.
*—Bill for the regulation of turnpike roads in Scotland. 1823 (221, 384) iii. 177, 231.
*—Act 4 Geo. IV, c. 49.
*—Bill to extend the powers of an Act for maintaining in repair the military and Parliamentary roads and bridges in the Highlands of Scotland; and ferry-piers and shipping-quays erected by the Commissioners for Highland Roads and Bridges; and for other purposes. 1824 (207) ii. 683.
—Act 5 Geo. IV, c. 38.
*—Report on Girvan and Stranraer roads. 1824 (428) vii. 151.
*Accounts of monies raised and paid to the Post-office in Scotland under the authority of an Act repealing the exemption from toll on carriages with more than two wheels carrying the mail. 1825 (11) xvii. 419.
*—Report by Mr. Telford on the Morpeth and Edinburgh road, by the towns of Berwick and Alnwick. 1825 (282) xv. 81.
*—Bill for amending and making more effectual the laws concerning turnpike roads in Scotland. 1830–31 (77, 279) ii. 397, 445.
*—Bill for amending and making more effectual the laws concerning turnpike roads in Scotland. 1831 (36, 166) iii. 495, 545.
*—Act 1 and 2 Gul. IV, c. 43.
[U.K. Govt.] Index to the General Turnpike Act for Scotland. 1832. 12mo.
*U.K. Govt. Act to amend three Acts passed for maintaining and keeping in repair the military and Parliamentary roads and bridges in the Highlands of Scotland, and to improve certain lines of communication in the counties of Inverness and Ross. 1833. 3 and 4 Gul. IV, c. 33.
*—Sums voted by Parliament on the Shannon, Caledonian Canal, Highland roads, canals in Canada. 1834 (599) xlii. 519.
*—Bill to render more effectual an Act of 2 Will. IV, as regards heirs of entail in possession to burden their estates for making turnpike-roads in Scotland. 1836 (154) vi. 421.
*—Rents of all turnpike gates in each county in Scotland, 1832–35. 1836 (514) xlvii. 273.
*—Report from the Select Committee on Statute Labour in Scotland, with minutes of evidence and appendix. 1836 (430) xviii. 397.
*—Returns of the sums levied and expended in lieu of statute labour in the different counties in Scotland. 1836 (In 430, Appx.) xviii. 492–575.
*—Statement regarding the Statute Labour Acts relating to Scotland. 1836 (In 430, Appx.) xviii. 467.
*—Names of Commissioners of Highland roads and bridges; dates of appointment; places of usual residence; similar return of officers, meeting of Commissioners, attendance, etc. 1842 (396) xxvi. 479.
*—Copy of report of Mark Napier, Esq., advocate depute, relative to the recent disturbances in Caithness connected with the Statute Labour assessments upon the inhabitants of that county. 1844 (466) xlii. 695.

Pagan (Wm.) Road Reform (in Scotland): a plan for abolishing turnpike tolls, frontages, and statute-labour assessments, and for providing the funds necessary for maintaining the public roads and bridges by an annual rate on horses. Edinburgh. 1845. 8vo.
1396.e.9.
*—(3rd ed.) 1857. pp. 165. 1396.e.19.
***U.K. Govt.** Bill for amending the laws concerning highways, bridges, and ferries in Scotland, and the making and maintaining thereof by statute service, and by the conversion of statute service into money. 1845 (205, 321) vi. 121, 139.
*—Act 8 and 9 Vict., c. 41.
*—Bill intituled an act for repealing so much of an act passed 1 and 2 Will. 4, intituled an act for amending and making more effectual the laws concerning the turnpike roads in Scotland, as relates to powers of justices to grant licences to tacksmen of tolls. 1845 (488) vi. 237.
*—Bill intituled an act to prevent tacksmen of tolls or other persons being licenced to sell wine, ale, or spirituous liquors at any toll-bar in Scotland. 1846 (95) iv. 483.
*—Bill to alter the mode of assessing the funds leviable in the County of Inverness for making and maintaining certain roads and bridges and other works in the Highlands of Scotland. 1848 (410, 485) iii. 1, 7.
*—Act 11 and 12 Vict., c. 40.
*—Bill for requiring the transmission of the annual abstracts and statements of trustees of turnpike roads in Scotland to the Secretary of State, to be laid before Parliament. 1849 (256) i. 7.
*—Act 12 and 13 Vict., c. 31.
*—Abstract of return of the name of each statute labour trust in Scotland; of the districts into which it is divided, and the length of road in each district, amount of annual revenue derived from composition in lieu of statute labour; value of labour from statute services during the years 1843 to 1847 inclusive; expenditure in repair of the roads, and number of meetings of trustees in the same period. 1850 (303) xlix. 145.
*—Bill to make more effectual provision for regulating the police of towns and populous places in Scotland, and for paving, draining, cleansing, lighting, and improving the same. 1850 (126, 307, 325, 349) vi. 15, 141, 271, 403.
*—Return of the names of all turnpike roads and bridge trusts in Scotland; length of road in each trust; amount of debts owing in each of the years 1843 to 1847 inclusive; amount of revenue and expenditure in each of the said years; number of persons employed, and number of trustees, and number of meetings of trustees held in each of the said years. 1850 (568) xlix. 197.
U.K. Govt. Abstract of the general statements of the income and expenditure of the several turnpike trusts in Scotland, for the year [ending Whitsunday], pursuant to Act 12 and 13 Vict., c. 31. 1851–83.

*1848–49—1851 [1343] xlviii. 463.
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*1852–53—1854–55 [2001] xlix. 343.
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***U.K. Govt.** Bill for rebuilding the bridge over the River Ness, at the town of Inverness, and improving the approaches thereto. 1851 (226) iii. 581.

*—Bill for rebuilding the bridge over the River Ness, at the town of Inverness, and improving the approaches thereto; and for amending the acts relating to Highland roads and bridges. 1851 (278) iii. 593.

*—Act 14 and 15 Vict., c. 66.

*—Return from turnpike and bridge trusts in Scotland, stating the title and date of each existing local act, the dates when they will severally expire, and the length of road belonging to each trust. 1852 (285) xliv. 513.

—Estimate of sum required for the grant to the Commissioners of Highland Roads and Bridges.

*1854—1854 (in 433) xl. 702.
*1855—1855 (in 140–VII) xxxi. 634.
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*—Bill to extend the provisions of an Act of 14 and 15 Vict. for rebuilding the bridge over the River Ness, at Inverness. 1855 (238) iii. 331.

*—Act 18 and 19 Vict., c. 113.

*—Estimate of the sum required to be voted in the year 1855, ending 31st March, 1856, as a grant towards the completion of the bridge at Inverness. 1855 (In 140–VII) xxxi. 663.

—Monies received and expended under Act 59 Geo. III, c. 135, for the maintaining and keeping in repair certain roads and bridges made in Scotland.

*1854—1855 (in 337) xv. 491.
*1855—1856 (in 113) xviii. 435.
*1856—1857 (in 156) iv. 13.

*—Statement of the Inverness bridge account. 1855 (In 337) xv. 497.

*—Statement of the sums which the several counties of Scotland have to pay, under the operation of the Road Repair Acts, to the Parliamentary Commissioners, as their proportion of the expense of repair of roads and bridges. 1854–55 (in 337) xv. 506.

*—Sums advanced for the repair of roads and bridges in the Highlands of Scotland, originally made by the Commissioners under the Act 43 Geo. III, c. 80. 1855 (In 337) xv. 499.

*—Sums advanced for the repair of the military roads in the counties of Inverness, Argyll, and Moray. 1855 (In 337) xv. 501.

*—Sums expended in maintaining in repair the roads in the County of Caithness, which were surrendered to the charge of the Commissioners in 1838; and also in payment of the proportion chargeable against the County of Caithness of the expense of management paid within the period of this account. 1855 (In 337) xv. 509.

*—Correspondence relating to a road through Holyrood Park. 1856 (213) lix. 465.

*U.K. Govt. Estimate of the sums proposed to be voted in the year 1856, ending March 31st, 1857, for the purpose of forming a new road through Holyrood Park to Duddingstone. 1856 (In 223–VIII) xxxix. 690.

*Aberdeen: *County Committee*. Report on the turnpikes and commutation roads in the county, with a view to an entire change of the present system of management, and the total abolition of turnpike gates. Aberdeen. 1857. 8vo, pp. 34.

*U.K. Govt. Statement of the Inverness Bridge account. 1857 (In 156) iv. 21.

*—Statement of the sums which the several counties of Scotland have to pay, under the operation of the Road Repair Acts, to the Parliamentary Commissioners as their proportion of the expense of repair of roads and bridges. 1856–57 (in 156) iv. 30.

*—Sums advanced for the repair of roads and bridges in the Highlands of Scotland, originally made by the Commissioners under the Act 43 Geo. III, c. 80. 1857 (In 156) iv. 23.

*—Bill to enable Counties in Scotland to abolish tolls and statute labour, and to maintain their public roads and bridges by assessment. 1858 (40) iv. 299.

*—Return showing the length, etc., of roads and streets within each Parliamentary burgh in Scotland, and amount of statute labour assessment in each County in Scotland. 1858 (244) lii. 681.

*—Return of the number of miles of roads in each county of Scotland, both turnpike and commutation; cost per mile of each class of road, etc. 1859 (8 Sess. 1) xxiii. 439.

*—Bill to levy an assessment in the County of Inverness to discharge a debt on the Castle Stewart and Nairn Road, in the said county. 1860 (93) iii. 625.

*—Act 23 and 24 Vict., c. 37.

*—Report of the Commissioners for inquiring into the matters relating to public roads in Scotland: with notes of evidence and appendices. 1860 [2596 and 2596–I] xxxviii. 1, 301.

—Commissioners for inquiring into matters relating to public roads in Scotland. Road Reform; report (dated Dec. 13th, 1859). . . . Abridged, with remarks and relative papers, by W. Pagan. Edinburgh. 1860. 8vo, pp. 130. 8768.bbb.23.(2).

*—Bill to enable Counties in Scotland to abolish tolls and statute labour, and to maintain their public roads and bridges by assessment. 1861 (58) iv. 107; amended by Select Committee (215) iv. 143.

*—Bill to explain and extend a certain exemption from toll on turnpike roads in Scotland. 1862 (32) v. 473.

*—Bill to provide for the transfer of the management of the statute labour roads and bridges within burghs in Scotland to the municipal authorities. 1862 (199) v. 155.

*—Bill to transfer the roads and bridges under the management of the Commissioners of Highland Roads and Bridges to the several counties in which the same are situate, and to provide for other matters relating thereto. 1862 (191) ii. 207; amended in Committee (214) ii. 223; Lords' amendments (249) ii. 241.

*—Act 25 and 26 Vict., c. 105.

*—Bill to amend the law with respect to statute labour roads and bridges in Scotland. 1863 (63) iv. 193; amended in Committee (127) iv. 203.

*—Bill to provide for the transfer of the magagement of the statute labour roads and bridges within burghs in Scotland. 1863 (64) v. 215; amended in Committee (128) iv. 221.

*U.K. Govt. Bill to provide for the management and maintenance of turnpike and statute labour roads and bridges in Scotland. 1865 (101) iv. 207; amended in Committee (165) iv. 259; amended in Committee, and on re-committal (231) iv. 315.

*Dunkeld: *Bridge Commissioners.* Dunkeld Bridge pontage: statement by the Commissioners. Perth. 1868. 8vo, pp. 15.

U.K. Govt. Bill to provide for the consolidation of trusts, the appointment of county road trustees, the abolition of tolls and statute labour, and the maintenance of public roads and bridges by assessment, in Scotland. 1869 (207) v. 49.

*—Act to define the boundary between the counties of Inverness and Elgin or Moray, in the district of Strathspey; and for other purposes. 1870. 33 and 34 Vict., c. 16.
Sections 4–6 deal with roads and bridges affected by determination of boundary.

—Bill for the abolition of tolls and pontages in Scotland, and to provide for the maintenance of roads and bridges in Scotland by assessment. 1873 (45) iv. 645.

—Return of the turnpike trusts in Scotland, showing the names of each, the short title and date of local act; the date at which such act expired or will expire; and whether such act is continued by the Turnpike Trusts Continuance Act; also, return relating to all roads and bridges in Scotland for the year ending Whit-Sunday, 1872, showing the income, expenditure, and debts. 1873 (384) lviii. 619.

*—Bill to alter and amend the law in regard to the management and maintenance of roads and bridges in Scotland. 1876 (118) vi. 449.

—Return from the turnpike road trusts of the counties of Renfrew and Lanark, and of the other counties in Scotland in which the roads are maintained by tolls under turnpike trusts; of the annual revenue and expenditure of the several trusts for the five years ending 31st May, 1875. 1876 (346) lxv. 505.

—Return of the names of the counties in Scotland in which tolls have been abolished or are not exacted, giving in respect of each, 1875–76, the valuation of the county; the assesment per £ levied for management and maintenance of roads; for debt; and for new works; and total assessment per £ for road purposes. 1876 (309) lxv. 529.

—Bill to alter and amend the law in regard to the maintenance and management of roads and bridges in Scotland. 1877 (65) vi. 99; as amended in Committee (214) vi. 149.

—Bill to amend the law in regard to the management and maintenance of roads and bridges in Scotland. 1877 (72) vi. 209.

—Return relating to roads and bridges in the counties of Lanark and Renfrew. 1877 (292) lxxiii. 441.

—Bill to alter and amend the law in regard to the maintenance and management of roads and bridges in Scotland. 1878 (4) vii. 65; as amended in Committee (224) vii. 125; Lords' amendments (278) vii. 195.

*—Act 41 and 42 Vict., c. 51.

—Return of the income and expenditure on roads in those counties of Scotland which have obtained private acts abolishing tolls, or in which no tolls are exacted, showing name of county, date of obtaining act, valuation on which assessment made, and other particulars. 1878 (232) lxvi. 801.

U.K. Govt. Return of the expenditure of the statute labour trustees in those counties in Scotland in which tolls have not been abolished, for the ten years ending 1st April, 1878, showing name of county, statute labour district, valuation, rate, and amount of assessment, expenditure, etc. 1878 (372) lxvi. 817.

Macbeth (Daniel) Handbook of the Roads and Bridges Act, 1878, 41 and 42 Vict., c. 51. Edinburgh. 1879. 8vo. 6583.f.2.

Goudy (Henry) and **Smith (William C.)** Local government in Scotland. Edinburgh. 1880. Fol., pp. 100. 6573.k.1.

U.K. Govt. Bill to amend the law in regard to charging road debts on entailed estates in Scotland. 1880 (95) vi. 85.

—Bill to confirm a Provisional Order of a Principal Secretary of State for providing that the Roads and Bridges (Scotland) Act, 1878, shall come into force subject to certain conditions in Edinburghshire. 1881 (185) v. 207.

Hunter (W. A) Handbook of the Roads and Bridges (Scotland) Act 1878. Edinburgh. 1882. 8vo, pp. 85. 6426.df.11.

U.K. Govt. Abstract of returns of receipt and expenditure of local taxation in Scotland. [Includes returns of roads and bridges].

*1880–81—1882 (21) lix. 103.
1881–82—1883 (38) lix. 241.
*1882–83—1884 (47) lxviii. 77.
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*1891–92—1893 (278) lxxvii. 1009.
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*1900–01—1903 (10) lix. 575.
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*1907–08—1909 (273) lxxv. 663.
*1908–09—1910 (312) lxxviii. 783.
*1909–10—1911 (215).

—Abstract of the general statements of the income and expenditure of the several counties and burghs which have adopted the Roads and Bridges (Scotland) Act, 1878.

1879–80—1882 (35) lxi. 479.
1880–81—1882 (208) lxi. 485.

—Bill to confirm a Provisional Order of a Principal Secretary of State for providing that the Roads and Bridges (Scotland) Act, 1878, shall come into force subject to certain conditions in Edinburghshire. 1882 (93) vi. 113; amended in Select Committee (159) vi. 119.

U.K. Govt. Minute of the Home Secretary as to the proposed appropriation of the grant in aid of the cost of maintenance of disturnpiked roads in Scotland.
1882–83—1883 (346) lxi. 587.
1883–84—1884 (337) lxx. 549.
—Determination of the Secretary of State with respect to certain bridges over the Tweed. 1884 (121) lxx. 551.
—Determination of the Secretary for Scotland with respect to certain bridges over the river Kelvin. 1887 (296) lxvi. 583.
—Bill to amend the law relating to rights of way in Scotland. 1888. (296) vi. 511.
—Bill to amend the Roads and Bridges (Scotland) Act, 1878. 1888 (189) vi. 517.
*—Act 51 and 52 Vict., c. 9.
—Determination of the Secretary for Scotland with respect to certain bridges over the river Kelvin. 1888 (21) lxxxi. 395.
—Determination of the Secretary for Scotland, with respect to the bridge over the river Clyde at Dalmarnock. 1888 (21–I) lxxxi. 399.
*—Act to amend the laws relating to local government in Scotland. 1889. 52 and 53 Vict., c. 50.
Section 16 provides for transfer to county councils of powers of road trustees, and for repeal of local road acts.
Section 116 makes transitional provisions concerning road authorities.
—Bill to amend the law relating to rights of way in Scotland. 1889 (75) vii. 267.
—Determination of the Secretary for Scotland with respect to the Glasgow and Carlisle Turnpike Road Trust. 1889 (181) lx. 989.
—Return for each county of Scotland (excluding burghs in which the Commissioners of Supply do not levy the county general assessment), showing the rate per £ of valuation of county general assessment [etc.]; average road assessments, distinguishing special rates for bridges and debt [etc.]. 1889 (159) lxvi. 585.
—Return of the distribution in Scotland of the grant-in-aid under the Probate Duties . . .; showing, for main roads, the expenditure on each, in respect of which aid was granted, with amount of grant. 1890 (153) lxvi. 547.
Rights of way in Scotland. *Scots Magazine*, June, 1890.
Dykes (J. E.) and **Stuart (D.)** Manual of the Roads and Bridges (Scotland) Act, 1878. Edinburgh. 1890. 8vo, pp. 238. 6573.cc.2.
U.K. Govt. Bill to amend the Roads and Bridges (Scotland) Act, 1878, in respect to the maintenance of roads and streets in police burghs. 1890 (265) viii. 183.
—Bill to confer on county councils in Scotland the power of maintaining and protecting rights of way, and otherwise to amend the law relating to rights of way in Scotland. 1890 (215) viii. 175.
—Bill to enable county councils in Scotland, on a report by the Sheriff, to sue actions of right of way. 1890 (216) viii. 179.
—Determination of the Secretary for Scotland with respect to the Linlithgow Bridge. 1890 (80) lviii. 823.
—Bill to amend the law relating to roads and streets in police burghs in Scotland. 1891 (12) ix. 73; amended in Committee, (350) ix. 77.
*—Act 54 and 55 Vict., c. 32.
—Bill to confer on county councils in Scotland the power of maintaining and protecting rights of way, and otherwise to amend the law relating to rights of way in Scotland. 1891 (127) ix. 65.

U.K. Govt. Bill to enable county councils in Scotland, on a report by the Sheriff, to sue actions of right of way. 1891 (172) ix. 69.
—Bill intituled, an act to amend the law in regard to bridges in Scotland. 1892 (232) ix. 259; *Amended in committee (291) ix. ix. 265.
*—Act 55 and 56 Vict., c. 12.
—Bill to amend the law relating to procedure in rights of way causes in Scotland. 1892 (263) ix. 247.
—Bill to confer on county councils in Scotland the power of maintaining and protecting rights of way, and otherwise to amend the law relating to rights of way in Scotland. 1892 (53) ix. 251.
—Bill to enable county councils in Scotland, on a report by the Sheriff, to sue actions of right of way. 1892 (156) ix. 255.
—Bill to amend the law relating to rights of way in Scotland. 1893 (335) vii. 381.
—Bill to confer on county councils in Scotland the power of maintaining and protecting rights of way, and otherwise to amend the law relating to rights of way in Scotland. 1893 (152) vii. 377.
—Bill to put an end to subventions from one road authority in Scotland to another. 1894 (117) viii. 139.
—Return comparing county rates in Scotland, per £ of valuation, for the year 1893–94, with the corresponding rates levied by Commissioners of Supply, road trustees, and parochial boards, prior to the commencement of the Local Government (Scotland) Act, 1889 1894 (100) lxxiv. Part II, 427.
—Annual report of the Local Government Board for Scotland. [section on highways]. 1895 *et seq.*
*1894–95—1895 [c. 7786] liii. 387.
*1895–96—1896 [c. 8219] xxxviii. 365.
*1896–97—1897 [c. 8575] xxxvii. 733.
*1897–98—1899 [c. 9273] xxxviii. 749.
*1899—1900 [cd. 182] xxxvi. 1.
*1900—1901 [cd. 701] xxvii. 489.
*1901—1902 [cd. 1051] xxxviii. 1.
*1902—1903 [cd. 1521] xxvi. 1.
*1903—1904 [cd. 2001] xxviii. 1.
*1904—1905 [cd. 2514] xxxiv. 1.
*1905—1906 [cd. 2989] xxxvii. 1.
*1906—1907 [cd. 3470] xxix. 1.
*1907—1908 [cd. 4142] xxxii. 1.
*1908—1909 [cd. 4679] xxx. 433.
*1909—1910 [cd. 5228] xl. 447.
*1910—1911 [cd. 5620].
*1911—1912 [cd. 6192].
—Bill to amend the law relating to procedure in rights of way causes in Scotland. 1896 (45) vi. 437.
—Report of the Congested Districts Board for Scotland. 1899 *et seq.* [Gives details of road and bridge works undertaken.]
*Oct. 1897–Dec. 1898—1899 [c. 9165] xxx. 695.
*Jan. 1899–March 1900—1900 [cd. 177] lxviii. 295.
*1900–01—1901 [cd. 553] lx. 129.
*1901–02—1902 [cd. 1049] lxxxiii. 169.
*1902–03—1903 [cd. 1566] lv. 203.
*1903–04—1904 [cd. 2021] lxxviii. 477.
*1904–05—1905 [cd. 2476] lxiii. 363.
*1905–06—1906 [cd. 2946] xcvii. 631.
*1906–07—1907 [cd. 3471] lxvii. 123.
*1907–08—1908 [cd. 4083] lxxxviii. 21.

*1908–09—1909 [cd. 4620] xvi. 149.
*1909–10—1910 [cd. 5198] xxi. 175.
*1910–11—1911 [cd. 5793].
*1911–12—1912 [cd. 6381].
Road maintenance in Mid-Lothian. *Surveyor*, Dec. 27, 1901.
***U.K. Govt.** Act to amend the law relating to the administration of burghs in Scotland. 1903. 3 Edw. VII, c. 33.
Sections 1–22 and 61 relate to streets.
Ferguson (James) The law relating to roads, streets, and rights of way, bridges and ferries in Scotland. Edinburgh. 1904. 8vo, pp. 635. 6553.g.4.
Street improvement and maintenance in Edinburgh. *Surveyor*, Nov. 2, 1906.
U.K. Govt. Bill to amend the law relating to rights of way in Scotland. 1906 (296) iv. 857.
Sutherland county roads: a startling report. *Surveyor*, Feb. 1, 1907.
***U.K. Govt.** Bill to amend the law relating to rights of way in Scotland. 1907 (117) iv. 121.
*—Bill to amend the Local Government (Scotland) Act, 1894, with regard to rights of way. 1907 (164) iv. 129.
*—Bill to amend the law relating to county government and to roads and bridges, and the use of locomotives thereon, in Scotland. 1908 (355) iii. 623; as amended by Standing Committee on Scottish Bills (392) iii. 651.
*—Act 8 Edw. VII, c. 62.
*—Bill to amend the Local Government (Scotland) Act, 1894, with regard to rights of way. 1908 (97) iv. 1029.
*—Return showing the rate per pound of assessment levied for roads and bridges by county councils in each county, or district of a county, in Scotland in each year from 1891–92 to 1907–08 inclusive. 1908 (347) xciii. 689.
*—Bill to amend the law as to rights of way in Scotland. 1909 (186) iv. 627.
*—Bill to amend the Local Government (Scotland) Act, 1894, with regard to rights of way. 1909 (204) iv. 633.
*—Bill to amend the law as to rights of way in Scotland. 1910 (109) v. 135.
Anderson (R. S.) The new Road Board and its administration in Scotland: *with discussion*. Association of Municipal and County Engineers, Proceedings, Vol. 37, pp. 179–182. 1911.
***U.K. Govt.** Bill to amend the Local Government (Scotland) Act, 1894, with regard to rights of way. 1911 [Commons Bill 81.]
Mid-Lothian roads: County Surveyor's report. *Surveyor*, Sept. 13, 1912.
Stevenson (Allan) Scottish roads. *Surveyor*, Aug. 30, 1912.

IRELAND

1. History and Description.

Giraldus [**de Barry**] *Cambrensis*. Topographia Hiberniæ [and other works] (Anglica, Hibernica, Normannica, Cambrica, a veteribus scripta [edited by] W. Camden) [1185 ?] 1602. Fol. 1325.k.

—Historical works. Containing [*inter alia*] the topography of Ireland . . . translated by T. Forester. . . Revised and edited, with additional notes, by T. Wright. (Bohn's Antiquarian Library.) 1847. 8vo. 2500.a.

Ireland; or, a booke, together with an exact mappe, of the most principal townes, great and small, in the said kingdome; wherein the longitude, latitude, and distance of one towne from another . . . [are] alphabetically set downe. 1647. 8vo, 12 parts. E.1175.(3).

The present state of Ireland, together with some remarques upon the antient state thereof; likewise a description of the chief towns. 1673. 12mo, pp. 280, *map*. G.4547.

A trip to Ireland, being a description of the country, . . as also some . . . observations on Dublin. 1699. Fol., pp. 12. G.5213.

A tour through Ireland. In several entertaining letters. To which is prefixed a description of the road from London to Holy-Head. By two English gentlemen. Part I. 1748. 8vo, pp. 246. 286.a.12.

Rocque (Jean) An index adapted to the plan of the city and suburbs of Dublin, from an actual and exact survey made by J. R., etc. Dublin. 1756. 8vo. 10390.b.29.

Scale (Bernard) An Hibernian atlas . . . showing . . . the great and post roads. 1776. 4to. 2060.d.

Taylor (George) and **Skinner (Andrew)** Maps of the roads of Ireland, surveyed 1777. 1778. 8vo, pp. xvi, 288 and 16, *illus*. G.19825.

The post chaise companion, or traveller's directory through Ireland; containing a new and accurate description of the direct and principal cross roads . . with alphabetical table of distances . . . Dublin. 1786. 8vo, *illus*., *map*.

—(3rd ed.) 1803. pp. xxvii, 660. 10390.d.8.

—(4th ed.) 1820 ? pp. xxxvi, 660, 10390.dd.6.

Ferrar (John) A view of antient and modern Dublin, with its improvements to the year 1796. To which is added a tour to Bellevue, in the county of Wicklow. Dublin. 1796. 8vo, pp. viii, 140. 286.b.31.(1).

—(2nd ed.) 1807. 1303.a.

The traveller's new guide through Ireland, containing a . . . description of the roads . . Also the present state of agriculture, manufactures, and commerce, with a complete list of all the fairs . . . Dublin. 1815. 8vo, *map*. 579.g.6.

Leigh (Samuel) Leigh's new pocket road-book of Ireland . . . [Edited by C. C. Hamilton] 1827. 12mo, pp. viii, 345. 797.a.5.
—3rd (ed.) 1835. pp. x. 528. 797.b.6 (*imperfect*).
Lewis (Samuel) Topographical dictionary of Ireland . . . 1837. 4to, 2 vols. 10390.k.1.
—(2nd ed.) 1842. 2061.d.
—Atlas [to accompany dictionary]. 1837. Fol. 10390.k.1.(2).
Wilson. The post-chaise companion, or traveller's directory through Ireland. 1876. 8vo, *illus.*
The Albert Bridge at Belfast. *Surveyor*, Nov. 20, 1896.
Irish roads improvement: preparations for the Gordon-Bennett race. *Surveyor*, June 5, 1903.
Gwynn (Stephen) Highways and byways in Donegal and Antrim. Illustrated by Hugh Thomson. 1903.
Falkiner (C. L.) Illustrations of Irish topography of the seventeenth century. 1904. 8vo, pp. 433. 9508.d.9.
King (Joseph) Dictionary of Ireland. 1905. 8vo. 10390.f.
Inglis (H. R. G.) The contour road book of Ireland. Edinburgh. 1908. pp. 256, 500 *maps and plans.* 10390.a.49.
The Irish Road Congress. *Sanitary Review*, May 5, 1910.
Short description of the existing bridges at Waterford and Portumna, and of the proposed new structures to replace them. Institution of Civil Engineers of Ireland, *Transactions*, Vol. 36, *illus.* 1910.
Waterford Bridge. *Engineer*, April, 1910, *illus.*
Waterford Bridge. *Engineering*, April 21, 1911, *illus.*

2. Administration.

The office and duty of high and petty constables, church wardens, overseers of the poor, parish watches, surveyors of high ways, bridges and causeys, county treasurers, gaolers, and masters of houses of correction in Ireland. Dublin. 1720. 12mo. 516.a.41.
Extracts of an Act for the more effectually paving, cleansing, and lighting the streets of Dublin, 23 and 24 Geo. III, c. 57. . . Dublin. 1786? Fol. 780.i.38 (3).
***U.K. Govt.** Accounts of paving, lighting and cleansing Dublin streets. 1803 (59) vii. 395.
*—Proceedings of Commissioners of Accounts previous to and since making their 28th report, respecting the accounts and conduct of the directors and commissioners for paving, cleansing and lighting the streets of Dublin. 1803 (90) vii. 455.
*—Bill to amend the laws for improving and keeping in repair the post-roads in Ireland, and for rendering the conveyance of letters by H.M. Post-office more secure and expeditious. 1805 (97) i. 391.
*—Act 45 Geo. III, c. 43.
*—Bill to appoint commissioners to inquire and examine into any irregularities or abuses which may have taken place in conducting and managing the paving, cleansing, and lighting the streets of Dublin; and to provide for the suspension of the powers and authorities of the Corporation of Directors and Commissioners for paving, cleansing and lighting the said streets, and for vesting the same in other persons during such suspension; and for the better conducting and managing the business of the said Corporation. 1805 (153) i. 711.
*—Act 45 Geo. III, c. 112.

***U.K. Govt.** Bill to amend the laws respecting the accounting for money presented in Ireland for the making, repairing, widening, or fencing of publick roads, and the building and repairing of bridges, pipes, or gullets. 1806 (253) i. 625.

*—Act 46 Geo. III, c. 96.

*—Bill to continue until June 24th, 1807, and amend an Act made in the last session of Parliament, for appointing commissioners to enquire and examine into any irregularities and abuses which might have taken place in conducting and managing the paving, cleansing, and lighting the streets of Dublin. 1806 (39) i. 49.

*—Act 46 Geo. III, c. 68.

*—Bill for improving post roads and rendering the conveyance of letters by the Post Office more secure and expeditious. 1806 (184) i. 433.

*—Letters from the Lord Lieutenant to Earl Spencer respecting the Dublin Paving Corporation. 1806 (87, 88) viii. 709, 711.

*—Report of Commissioners on the state of the Dublin paving, and on the conduct and management of the Paving Board. 1806 (17) viii. 473.

—Estimate of the expense of Commissioners for making wide and convenient streets in Dublin. 1807–26.

*1806–7 (65) vi. 356.
*1808 (141) vii. 401.
*1814–15 (180) vii. 4.
*1819 (507) xv. 630.
*1820 (158) xi. 144.
*1821 (544, 546) xix. 4, 26.
*1822 (173–74) xviii. 362.
*1823 (141, 169) xvi. 14, 33.
*1824 (55, 57) xxi. 15, 35.
*1825 (83, 85) xxii. 16, 35.
*1826 (152) xx. 195.

*—Bill for amending the Irish Road Acts. 1809 (182, 229) i. 401, 621.

*—Act 49 Geo. III, c. 84.

*—Act to continue until Mar. 25th, 1811, certain Acts of the Parliament of Ireland, for the improvement of the City of Dublin, by making wide and convenient passages through the same, and for regulating the coal trade thereof, and for other purposes. 1809. 49 Geo. III, c. 72.

*—Report of Commissioners of Paving [Dublin] to the Lord Lieutenant. 1809 (148) vii. 574.

*—Bill to amend an Act of the last session of Parliament, for amending the Irish Road Acts. 1810 (93, 172) i. 63, 189.

*—Act 50 Geo. III, c. 29.

*—Bill for amending laws respecting money raised by grand juries. 1810 (118) i. 159.

*—Bill to repeal certain parts of several Acts of the Parliament of Ireland, relating to the tolls on stage coaches, carrying above a certain number of passengers, and to make other provisions in lieu thereof. 1811 (214) i. 339.

*—Act 51 Geo. III, c. 92.

*—Bill for regulating powers of grand juries in the presenting of money, and accounting for the same; and for otherwise amending the Irish Road Acts. 1812 (244) i. 1077.

*—Bill to amend the laws relative to turnpike roads. 1812 (337) i. 1245.

*—Bill to amend an Act of 45 Geo. III, intituled "An Act to amend the laws for improving and keeping in repair the post roads in Ireland, and for rendering the conveyance of letters by H.M. Post Office more secure and expeditious." 1813 (202) ii. 799.

*—Act 53 Geo. III, c. 146.

*—Bill to amend an Act passed in Ireland in 19 and 20 Geo. III, for empowering grand juries to present bridges, and tolls to be paid for passing the same, in certain cases. 1813 (268) ii. 959.

*—Act 53 Geo. III, c. 77.

*U.K. Govt. Bill to extend the provisions of an Act of 49 Geo. III, for amending the Irish Road Acts, so far as the same relates to the appointment of supervisors on mail coach roads, to all roads made and repaired by presentment. 1813 (239) ii. 871.
*—Act 53 Geo. III, c. 76.
*—Report on the method of raising and appropriating money by presentments. 1815 (283) vi.
*—Report on the method of raising and appropriating money by presentments. 1816 (374, 435) ix.
*—Bill to provide for the more deliberate investigation of presentments to be made by grand juries for roads and public works in Ireland, and for accounting for money raised by such presentments. 1817 (341, 380, 429, 447) ii.
*—Act 57 Geo. III, c. 107.
*—Act to suspend, until the end of the present session, the operation of an Act made in the last session of Parliament, to provide for the more deliberate investigation of presentments to be made by grand juries for roads and public works in Ireland, and for accounting for money raised by such presentments. 1818. 58 Geo. III, c. 2.
*—Bill to provide for the more deliberate investigation of presentments to be made by grand juries for roads and public works in Ireland and for accounting for money raised by such presentments. 1818 (286, 309, 330) ii.
*—Act 58 Geo. III, c. 67.
*—Report from the Board appointed by c. 57 Geo. III, for the more deliberate investigations of grand jury presentments for roads and public works, and for accounting for money raised by such presentments, respecting the qualifications of county surveyors. 1818 (2) xvi. 435.
*—Bill to amend the laws for making, repairing, and improving the roads and other public works in Ireland, by grand jury presentments, and for a more effectual investigation of all such presentments, and for further securing a true, full, and faithful account of all monies levied under the same. 1819 (426, 489, 570) i. B.
*—Act 59 Geo. III, c. 84.
*—Report on the method of raising and appropriating money by presentments. 1819 (378) viii. 361.
*—Accounts of the grand jury cess, and paving and lighting tax [Dublin.] 1820 (266) ix. 461.
*—Eight accounts relating to the paving and lighting tax . . . wide street tax, etc. 1821 (420) ix. 197.
*—Reports on the mode of collecting and applying money raised [by grand jury presentments]. 1822 (353, 413, 451) vii.
*—Returns from the Commissioners for paving and lighting, of the dates of notices for contracts for paving; sums expended for building on ground adjoining Major Taylor's lands on the Circular Road South, and adjoining the Paving-house; and, statement of sums paid by the Commissioners from 1808 to 1823. 1823 (250) vi. 330.
*—Bill to repeal several Acts, and to substitute other enactments for the same. [Dublin, Commissioners of Paving]. 1824 (419) ii. 273.
*—Report from Mr. Nimmo on the subject of the Kerry Road, Ireland. 1824 (282) xxi. 713.
*—Report of Mr. Griffith in 1823, on the Southern district roads, comprehending Limerick, Cork, and Kerry. 1824 (352) xxi. 715.
*—Sum wanted to improve the road from Howth to Dublin. 1824 (56, 57) xxi. 28, 38.

***U.K. Govt.** Bill to provide for the repairing, maintaining and keeping in repair certain roads and bridges. 1825 (436) iii. 153.

*—Act 6 Geo. iv. c. 101.

—Reports (6) of the Commissioners appointed for the execution of Act 6 Geo. IV, for providing for the repairing, maintaining and keeping in repair, certain roads and bridges in Ireland 1826-31.

*1st—1826 (102) xi. 173.
*2nd—1826–27 (171) xi. 329.
*3rd—1828 (126) xii. 339.
*4th—1829 (132) xiii. 187.
*5th—1830 (198) xv. 151.
*6th—1830–31 (295) iv. 397.

*—Bill to continue an Act of 6 Geo. IV, for providing for the repairing maintaining and keeping in repair certain roads and bridges in Ireland. 1827 (361) i. 507.

*—Act 7 and 8 Geo. IV, c. 23.

*—Report of the Commissioners on the management and system of conducting the affairs of the Paving Board, Dublin. 1827 (329) xi. 417.

*—Accounts and papers relating to the wide streets, Dublin, Nos. 1 to 8 inclusive. 1828 (81) xxiii. 569.

*—Accounts relating to the Paving Board, Dublin, from August, 1807, to Jan., 1827. 1828 (82) xxii. 441.

*—Bill to continue an Act of 6 Geo. IV, for providing for repairing and maintaining, etc., certain roads and bridges in Ireland, for a time to be limited. 1829 (268) ii. 523.

*—Act 10 Geo. IV, c. 40.

*—Report of Mr. Griffith on the Southern district of Ireland. 1829 (153) xxii. 349.

*—Report of Mr. Nimmo on the progress of works in the western district in 1828. 1829 (348) xxii. 337.

*—Report on the southern district of Ireland, containing a statement of the progress made on the several roads carried on at the public expense in that district, under the orders of the Lord-Lieutenant. 1829 (153) xxii. 349.

*—Accounts of all sums advanced by the public to grand juries for mail-coach roads, and prisons, and employment of the poor in Ireland, during the last two years, and all repayments of such advances. 1829 (327) xxii. 317.

*—Number of inquests held under statutes for making wide streets in Dublin; names of jurors, and amount paid to each, 1820 to 1829. 1830 (149) xxvi. 293.

*—Public money expended under the direction of Mr. Nimmo, on public works in Ireland; works completed and left unfinished . . . 1830 (624) xxvii. 305.

*—Report of Mr. Nimmo on the progress of works in the western district in 1829. 1830 (199) xxvii. 299.

*—Sums advanced from the consolidated fund of Ireland to the corporation of Londonderry, for the purpose of repairing the bridge, 1814 to 1830. 1830 (558) xxvi. 423.

*—Treasury minute respecting a sum advanced to the corporation of Londonderry towards building a bridge across the river Foyle. 1830 (612) xxvi. 612.

*—Expenses incurred by the corporation of Londonderry in rebuilding the bridge over the river Foyle; produce of the tolls, expense of maintaining the bridge in repair. 1830–31 (94) xiv. 269.

*—Report on the roads made at the public expense in the southern district of Ireland, by Richard Griffith. 1831 (119) xii. 61.

*U.K. Govt. Sum expended, 1824 to 1830, on the several roads in each county of Ireland, by the direction and under the control of the supervisors, and subsequently levied by grand jury presentments to reimburse such supervisors. 1831 (211) xvii. 543.

*—Account of turnpike tolls paid by mails in Ireland. 1832 (in 716—Appx.) xvii. 337.

*—Bill to amend an Act of 45 Geo. III, relating to post roads, Ireland. 1832 (604) ii. 733.

*—Act 2 and 3 Gul. IV, c. 86.

*—Bill to repeal Act 26 Geo. III, intituled, an Act for making, widening, and repairing public roads in the county of Dublin; and for repealing parts of several Acts, formerly made for that purpose, as provides for the applotting and levying of presentments off the baronies of St. Sepulchre and Donore, in a manner different from that provided for other baronies in the county of Dublin. 1832 (97) iv. 611.

*—Improvements in Cork; new line of road; employment of labourers on other estates. 1832 (355) xlv. 207.

*—List of post towns in Ireland, with the route by which letters from London are forwarded. 1832 (716, Appx.) xvii. 385.

*—Reports of the Select Committee appointed to inquire into the state of roads under turnpike trusts. 1832 (645) xvii. 397.

Appendix contains—(1) returns relating to exemptions from toll, conveyance of letters otherwise than by mails, rate per mile to contractors, rate of mail-coach travelling, tolls paid by Post-office; (2) Tolls paid by Post-office on different lines of road and for bridges, general toll duties, tolls paid by Post-office contractors; (3) name of each trust, length of road, names of trustees, and how elected, annual income and expenditure, amount of debt, quality of materials used, schedule of tolls now levied, and amount of loss incurred by each trust, 1811–1831; (4) amount of expenditure for repairs and management, 1829–32; (5) proceedings in Parliament relative to certain turnpike road bills; (6) plan of Dublin metropolis roads, north and south of river Anna Liffey; (7) new map of Ireland, showing the post towns and mail conveyances throughout, together with the distance, in Irish miles and furlongs, of each town from the next, and the total distance from Dublin by the post-road.

*—Reports of commissioners of public works in Ireland, upon the state of the several roads and bridges placed under their care by 1 and 2 Will. IV, c. 33, pursuant to 6 Geo. IV, c. 101. 1832 (327) xxiii. 607.

*—Returns concerning treasurers and other officers of the Commissioners of Paving, Dublin. 1832 (415) xlv. 265.

*—Estimate of expenses for carrying on and completing new roads in Galway. 1833 (654) xxiv. 505.

*—Report from Select Committee appointed to inquire into the operation of Acts relating to the bridge over the Foyle at Derry, and into the application of tonnage dues by the corporation, etc., with minutes of evidence. 1833 (557) xvi. 367.

*—Act amending the Act of 49 Geo. III, for amending the Road Acts for Ireland. 1834. 4 and 5 Gul. IV, c. 50.

*—Bill for the more effectually providing for the erection of certain bridges in Ireland. 1834 (360) i. 417.

*—Act 4 and 5 Gul. IV, c. 61.

*—Bill to continue Acts for regulating expiring turnpike roads, and regulating post roads in Ireland. 1834 (467) iv. 507.

*—Act 4 and 5 Gul. IV, c. 91.

*U.K. Govt. Bill to consolidate and amend the several turnpike Acts in Ireland. 1834 (136) iv. 439.

Taylor (George) *Lessee of the Kilcullen Turnpike Road.* Copy of the memorial from Messrs. Taylor to the Lords of the Treasury, praying for the payment of certain tolls withheld from them by the Irish Post-Office Department. Dublin. 1835. 8vo, pp. 37. 8247.bbb.43.

*U.K. Govt. Bill for giving effect and validity to certain contracts and presentments for keeping in repair certain public roads in Ireland. 1835 (451) iv. 129.

*—Act 5 and 6 Gul. IV, c. 31.

*—Return respecting salary of the secretary of the Paving Board, Dublin. 1835 (379) xxxvii. 759.

*—Bill to consolidate trusts in the neighbourhood of the city of Dublin, and to substitute local rates for tolls. 1836 (339) iii. 215.

*—Bill to continue Acts for regulating expiring turnpike roads, and regulating post roads in Ireland. 1836 (408, 535) vi. 419, 511.

*—Act 6 and 7 Gul. IV, c. 40.

*—Papers relating to improvements on Crown lands at King William's Town; line of road through Cork and Kerry. 1836 (315) xlvii. 613.

*—Bill to continue Acts for regulating expiring turnpike roads, and regulating post roads in Ireland. 1837 (310) iv. 521.

*—Report from the Select Committee appointed to inquire into the management of turnpike roads in Ireland. 1837 (484) xx. 397.

*—Further report of Richard Griffith to the Commissioners of Woods, etc., on the improvements on the Crown estate of King William's Town, Cork. 1839 (515) xlvii. 553.

*—Act to continue the several Acts for regulating turnpike roads in Ireland. 1840. 3 and 4 Vict., c. 46.

*—Bill to continue the Acts for regulating expiring turnpike roads, and regulating post roads in Ireland. 1841 (38, 109) iii. 527, 529.

*—Act 4 and 5 Vict., c. 6.

*—Bill to enable the Commissioners of Wide Streets to sell, and Her Majesty to purchase, certain hereditaments in the city of Dublin, on the north bank of the river Anna Liffey. 1841 (221) ii. 299.

*—Act 4 and 5 Vict., c. 16.

*—Papers relating to accounts of advances and repayments on account of Thomond Bridge, Limerick. 1841 (205) xiii. 391.

*—Returns from the Commissioners for making wide and convenient streets in the city of Dublin. 1841 (204) xxvii. 253.

*—Copy of further report of Richard Griffith to the Commissioners of H.M. Woods, on the progress of the roads and land improvements in the Crown estate of King William's Town. 1841 (Sess. 2) (8) ii. 395.

*—Bill to continue until July 31st, 1843, and to the end of the then session, the several acts for regulating turnpike roads in Ireland. 1842 (188) iv. 375.

*—Act 5 and 6 Vict., c. 23.

*—Bill to extend the provisions of 4 Vict., for enabling the Commissioners of Wide Streets to sell, and Her Majesty to purchase, certain hereditaments in the city of Dublin, on the north bank of the river Anna Liffey. 1842 (433) iv. 421.

*—Act 5 and 6 Vict., c. 62.

*—Bill to amend an Act of 19 and 20 Geo. III, for empowering grand juries to present bridges, and tolls to be paid for passing the same, in certain cases. 1843 (366) i. 285.

*—Act 6 and 7 Vict., c. 42.

***U.K. Govt.** Bill to continue Acts for regulating expiring turnpike roads, and regulating post roads in Ireland. 1843 (16) iv. 541.

*—Act 6 and 7 Vict., c. 21.

*—Bill to continue Acts for regulating expiring turnpike roads, and regulating post roads in Ireland. 1844 (256) iv. 737.

*—Act 7 and 8 Vict., c. 36.

*—Copy of the report on the experimental improvements on the Crown estate of King William's Town, Cork, by Richard Griffith, dated July 24th, 1844, in continuation of his last report, presented Sept. 26th, 1841. 1844 (612) xliii. 43.

*—Bill to continue to July 31st, 1846, certain Acts for regulating turnpike roads in Ireland. 1845 (486) vi. 235.

*—Act 8 and 9 Vict., c. 125.

*—Annual amount of money levied for paving, lighting, and cleansing the city of Dublin for the last seven years . . . rejected proposals for paving; salaries of officers employed by the Paving Board . . . balance of cash on hand to the credit of the Commissioners for Paving, etc., for seven years. 1846 (593) xlii. 133.

*—Bill to continue certain Acts for regulating turnpike roads in Ireland. 1846 (582) iv. 481.

*—Act 9 and 10 Vict., c. 89.

*—Minutes of evidence taken before the Committee on the Dublin Wide Streets Bill. 1846 (539) xii. 337.

*—Return of the receipts and expenditure of the Commissioners of Wide Streets, Dublin, for each year from 1833 to 1846; of the several sums of money now due to the Commissioners, distinguishing the period and source of borrowing, the times of borrowing, the nature of the security, and the rate and amount of interest payable; also the number and description of the persons employed by or under the Commissioners, together with the amount of salaries and allowances paid to every such person or officer, when exceeding £50 per annum. 1846 (674) xlii. 177.

Colles (Edward Richard Purefoy) and **Colles (Henry)** The clauses of Acts affecting Public Works in Ireland, abstracted and arranged in dictionary order, as an index for the use of the Commissioners of Public Works. Dublin. 1847. 12mo. 6503.b.

***U.K. Govt.** Bill to continue certain Acts for regulating turnpike roads in Ireland. 1847 (376) iv. 375.

*—Act 10 and 11 Vict., c. 35.

*—Bill to continue certain Acts for regulating turnpike roads in Ireland. 1848 (529) vi. 483.

*—Act 11 and 12 Vict., c. 73.

*—Bill for the prevention of accidents and dangers to passengers upon public roads and highways in Ireland, and for the punishment of offences relating thereto. 1849 (542) i. 1.

*—Bill to continue certain Acts for regulating turnpike roads in Ireland. 1849 (377) vi. 569.

*—Act 12 and 13 Vict., c. 47.

*—Bill for requiring the transmission of annual abstract of accounts and statements of trustees or commissioners of turnpike roads and bridges in Ireland, to the Lord Lieutenant, to be laid before Parliament. 1850 (84) viii. 451.

*—Act 13 and 14 Vict., c. 4.

*—Bill to continue certain Acts for regulating turnpike roads in Ireland. 1850 (410) viii. 457.

*—Act 13 and 14 Vict., c. 34.

*—Bill to give further facilities to town commissioners for the improvement of towns in Ireland. 1850 (484) iii. 329.

*U.K. Govt. Bill to amend an Act of 6 and 7 Vict., to amend an act of 19 and 20 Geo. III, for empowering grand juries in Ireland to present bridges, and tolls to be paid for passing the same, in certain cases. 1851 (270) i. 185.
*—Act 14 and 15 Vict., c. 21.
*—Bill to continue certain Acts for regulating turnpike roads in Ireland. 1851 (490) vi. 293.
*—Act 14 and 15 Vict., c. 44.
*—Bill to make better provision for the paving, lighting, draining, cleansing, supplying with water, and regulation of towns in Ireland. 1851 (30) iii. 311; as amended by Select Committee (207) iii. 433.
*—Reports and statements respecting the construction and repair of roads and bridges in Ireland in 1850. 1851 [In 1414] xxv. 1.
—Abstract of the general statement of the income and expenditure of turnpike trusts in Ireland. 1852–57.
*1849 and 1850—1852 (137) xliv. 449.
*1851—1852–53 (149) xcvii. 633.
*1852—1854 (208) lxiv. 327.
*1853—1854–55 (199) xlix. 337.
*1854—1856 (170) lviii. 321.
*1855—1857 (133, Sess. 2) xxxvii. 523.
*—Bill to continue certain Acts for regulating turnpike roads in Ireland. 1852 (235) iv. 411.
*—Act 15 and 16 Vict., c. 22.
*—Bill to make better provision for the paving, lighting, draining, cleansing, supplying with water, and regulation of towns in Ireland. 1852 (53) ii. 305.
*—Bill to consolidate and amend the laws relating to highways in Ireland. 1853 (923) iii. 573.
*—Bill to continue certain Acts for regulating turnpike roads in Ireland. 1853 (816) vi. 451.
*—Act 16 and 17 Vict., c. 76.
*—Bill to continue certain acts for regulating turnpike roads in Ireland. 1854 (159) vi. 525.
*—Act 17 and 18 Vict., c. 42.
*—Act to enable the Collector-General of Dublin to levy money to repay a certain outlay by the Corporation, for preserving and improving the Port of Dublin . . . and for repairing and rebuilding bridges over the Liffey. 1854. 17 and 18 Vict., c. 22.
*—Bill to make better provision for the paving, lighting, draining, cleansing, supplying with water, and regulation of towns in Ireland. 1854 (12) vi. 393; as amended in Committee (58) vi. 453.
*—Act to discontinue the taking of toll on the turnpike roads leading from Dublin, and to provide for the maintenance of such roads as public roads, and for the discharge of the debts due thereon. 1855. 18 and 19 Vict., c. 69.
*—Act to discontinue the taking of toll on the turnpike road from Kinnegad to Athlone, and to provide for the maintenance of such road. 1855. 18 and 19 Vict., c. 69.
*—Bill to continue certain Acts for regulating turnpike roads in Ireland. 1855 (264) vi. 307.
*—Act 18 and 19 Vict., c. 83.
*—Commission for inquiring into the propriety of maintaining or abolishing certain turnpike roads in the vicinity of Dublin; expenses incurred; letter to the Home Secretary by the Chief Secretary for Ireland, in March, 1854, praying that a commission might issue. 1855 (196) xlix 333.

*U.K. Govt. Reports of the commissioners appointed to inquire into the propriety of maintaining or abolishing certain turnpike roads in the vicinity of Dublin, with notes of evidence and appendix. 1855 (0.1) xix. 697.

*—Admiralty report on bridges, waterworks, and improvements in the city of Cork. 1856 (41–26) xxxvii. 53.

*—Bill to continue certain Acts for regulating turnpike roads in Ireland. 1856 (231) vi. 501.

*—Act 19 and 20 Vict., c. 71.

*—Report of the Commissioner appointed to inquire into the propriety of maintaining or abolishing the several turnpike roads existing in Ireland, with notes of evidence. 1856 [2110] xix. 601.

*—Return relative to the examination of candidates for the office of county surveyor in Ireland, allocation of qualified candidates, etc. 1856 (335) liii. 351.

*—Bill to discontinue the taking of toll on the turnpike roads now existing in Ireland, and to provide for the maintenance of such roads as public roads, and for the discharge of the debts due thereon, and for other purposes relating thereto. 1857 (20, Sess. 1; 39, Sess. 2) i. 421; iv. 645.

*—Act 20 and 21 Vict., c. 16.

*—Report from the Select Committee on County and District Surveyors, etc. (Ireland); with the proceedings, minutes of evidence, appendix, and index. 1857 (270, Sess. 2) ix, 55.

*—Bill for abolishing the tolls now levied on the bridge over the Shannon at Portumna. 1858 (14) iv. 75; amended by Select Committee (48) iv. 79.

*—Act 21 and 22 Vict., c. 23.

*—Bill to enable grand juries in Ireland to increase the remuneration of county surveyors. 1860 (333) ii. 783.

*—Bill to enable grand juries in Ireland to increase the remuneration of county surveyors, and for other purposes. 1861 (87) i. 673; as amended in Committee, (213) i. 681.

*—Bill to amend the law relating to the appointment of county surveyors in Ireland. 1862 (122) i. 531; as amended in Committee, (211) i. 535; Lords' Amendments, (248) i. 539.

*—Return of the names of the county surveyors in each county in Ireland, and their assistants, with their salaries, with a statement of the amount advanced to them, pursuant to the Act 24 and 25 Vict., c. 43, etc. 1863 (277) l. 647.

*—Bill to amend the law relating to grand jury presentments for county or county of the city bridges in Ireland. 1864 (70) i. 115.

*—Act to afford further facilities for the erection of certain bridges in Ireland. 1867. 30 and 31 Vict., c. 50.

*—Act to authorise the Commissioners of H.M. Treasury to compound the public debt and interest due by the Limerick Harbour Commissioners, and to make arrangements for the payment of the amount for which such debt is to be compounded; and for the transfer of Wellesley Bridge in the City of Limerick to the Commissioners of Public Works, and for other purposes. 1867. 30 and 31 Vict., c. 53.

*—Act to provide further facilities for the repair of roads, bridges and other public works in Ireland in case of sudden damage. 1867. 30 and 31 Vict., c. 112.

*—Act to validate certain proceedings of the Grand Jury of the County of Wexford [in relation to the purchase of New Ross Bridge] 1867. 30 and 31 Vict., c. 77.

U.K. Govt. Bill to authorise the Commissioners of H.M. Treasury to compound the public debt due by the Commissioners of the bridge across the River Blackwater near the town of Youghal in the County of Cork, and for the transfer of the said bridge to the grand juries of the counties of Cork and Waterford, and for other purposes relating thereto. 1867 (156) i. 395.

*—Act 30 and 31 Vict., c. 57.

—Return of local taxation in Ireland. [Includes returns of roads, bridges and streets] 1868 *et seq.*

1865—1867–68 [4081] lviii. 761.
1866–68—1868–69 [4213] lii. 413.
1869—1871 [c. 300] lvii. 85.
1870—1872 [c. 478] xlix. 223.
1871—1872 [c. 650] xlix. 273.
1872—1873 [c. 848] lvi. 317.
1873—1874 [c. 1088] lvi. 879.
1874—1875 [c. 1333] lxiv. 71.
1875—1876 [c. 1562] lxiii. 421.
1876—1877 [c. 1886] lxxi. 397.
1877—1878 [c. 2153] lxv. 161.
1878—1879 [c. 2409] lxi. 305.
*1879—1880 [c. 2738] lxii. 217.
1880—1881 [c. 3097] lxxix. 125.
1881—1882 [c. 3367] lix. 13.
1882—1883 [c. 3811] lix. 73.
*1883—1884 [c. 4152] lxviii. 11.
*1884—1885 [c. 4544] lxvii. 429.
*1885—1886 [c. 4810] lvii. 1.
1886—1887 [c. 5225] lxxi. 1.
1887—1888 [c. 5542] lxxxvii. 1.
1888—1889 [c. 5801] lxvi. 351.
1889—1890 [c. 6166] lxiii. 443.
1890—1891 [c. 6482] lxviii. 703.
*1891—1892 [c. 6802] lxviii. 915.
*1892—1893 [c. 7219] lxxviii. 953.
*1893—1894 [c. 7499] lxxiv. part I, 409.
*1894—1895 [c. 7795] lxxxv. 1.
*1895—1896 [c. 8198] lxxii. 725.
*1896—1897 [c. 8602] lxxvi. part I, 717.
*1897—1898 [c. 9026] lxxix. 667.
*1898—1899 [c. 9481] lxxxiii. part I, 707.
*1899—1900 [cd. 266] lxxiii. 799.
*1899–1900—1902 [cd. 879] lxxxviii. 361.
*1900–01—1902 [cd. 1352] lxxxviii. 425.
*1901–02—1903 [cd. 1694] lix. 381.
*1902–03—1904 [cd. 2130] lxxxiii. 1.
*1903–04—1905 [cd. 2460] lxvii. 591.
*1904–05—1906 [cd. 2896] civ. 543.
*1905–06—1907 [cd. 3422] lxxii. 443.
*1906–07—1908 [cd. 4018] xcii. 653.
*1907–08—1909 [cd. 4614] lxxv. 511.
*1908–09—1910 [cd. 5091] lxxviii. 649.
*1909–10—1911 [cd. 5564].
*1910–11—1912 [cd. 6084].

U.K. Govt. Returns from county surveyors in Ireland, of number of assistants and their salaries; of miles of road under charge; of miles of new road made since appointment; of miles of new road made since 1840; and of amount expended on construction, etc., in each year since 1840. 1868 (446) lv. 655.

U.K. Govt. Annual report of the Local Government Board for Ireland, for the year ended March 31st. 1873 *et seq.*
*1872-3—1873 [c. 794] xxix. 417.
*1873-4—1874 [c. 967] xxvi. 1.
*1874-75—1875 [c. 1221] xxxii. 1.
*1875-76—1876 [c. 1493] xxxi. 535.
*1876-77—1877 [c. 1761] xxxviii. 1.
*1877-78—1878 [c. 2116] xxxviii. 1.
*1878-79—1879 [c. 2363] xxx. 1.
*1879-80—1880 [c. 2603] xxviii. 1.
*1880-81—1881 [c. 2926] xlvii. 269.
*1881-82—1882 [c. 3311] xxxi. 1.
*1882-83—1883 [c. 3581] xxix. 1.
*1883-84—1884 [c. 4051] xxxviii. 1.
*1884-85—1885 [c. 4400] xxxiv. 1.
*1885-86—1886 [c. 4728] xxxii. 1.
*1886-87—1887 [c. 5124] xxxvii. 1.
*1887-88—1888 [c. 5455] l, 1.
*1888-89—1889 [c. 5769] xxxvi. 695.
*1889-90—1890 [c. 6094] xxxiv. 361.
*1890-91—1891 [c. 6439] xxxv. 1.
*1891-92—1892 [c. 6801] xxxix. 1.
*1892-93—1893 [c. 7073] xliv. 1.
*1893-94—1894 [c. 7454] xli. 1.
*1894-95—1895 [c. 7818] liii. 1.
*1895-96—1896 [c. 8153] xxxviii. 1.
*1896-97—1897 [c. 8599] xxxvii. 403.
*1897-98—1898 [c. 8958] xli. 1.
*1898-99—1899 [c. 9480] xxxix. 1.
*1899-1900—1900 [cd. 338] xxxv. 1.
*1900-01—1902 [cd. 1259] xxxvii. 1.
*1901-02—1903 [cd. 1606] xxvi. 531.
*1902-03—1904 [cd. 2012] xxvii. 1.
*1903-04—1905 [cd. 2320] xxxii. 703.
*1904-05—1905 [cd. 2655] xxxiii. 1.
*1905-06—1906 [cd. 3102] xxxvi. 495.
*1906-07—1907 [cd. 3682] xxviii. 1.
*1907-08—1908 [cd. 4243] xxxi. 1.
*1908-09—1909 [cd. 4810] xxx. 1.
*1909-10—1910 [cd. 5319] xl. 1.
*1910-11—1911 [cd. 5847].
*1911-12—1912 [cd. 6339].

U.K. Govt. Bill to afford facilities for the transfer to the grand juries of the counties of Cork and Waterford of the bridge across the River Blackwater, near the town of Youghal, and for other purposes relating thereto. 1873 (176) i. 61; as amended by Select Committee (213) i. 71.
*—Act 36 and 37 Vict., c. 46.
—Bill to amend an Act passed in 30 and 31 Vict., intituled "An Act to authorise the Commissioners of H.M. Treasury to compound the public debt due by the Commissioners of the bridge across the River Blackwater, near the town of Youghal, in the county of Cork, and for the transfer of the said bridge to the grand juries of the counties of Cork and Waterford, and for other purposes relating thereto." 1873 (177) i. 81.
*—Act 36 and 37 Vict., c. 47.
—Return of the mileage and maintenance for the year ending March, 1872, in respect of public roads in each county in Ireland. 1873 (15) lviii. 273.

U.K. Govt. Bill for regulating the traffic in the city of Dublin, and certain other parts of the police district of Dublin metropolis, and for other purposes relating thereto. 1875 (244) vii. 241.

—Bill to amend an Act passed in 30 and 31 Vict., intituled "An Act to afford further facilities for the erection of certain bridges in Ireland." 1875 (226) i. 245.

*—Act 38 and 39 Vict., c. 46.

—Return relative to the sums received for tolls on the Wellesley Bridge, Limerick, since the date of arrangement with the harbour authorities in 1867. 1875 (197) lxvii. 793.

—Return relating to county surveyors and their assistants in each county in Ireland, giving their names, salaries, etc.; also particulars of expenditure under such surveyors, for the year ending with the summer assizes, 1877. 1878 (218) lxvi. 779.

—Bill to amend the Limerick Harbour (Composition of Debt) Act, 1867, in relation to Wellesley Bridge. 1882 (189) vi. 743; amended by Select Committee (249) vi. 749.

—Bill to extend the powers of the Corporation of Dublin with respect to the highways of the City of Dublin. 1882 (88) ii. 175.

—Report of the Fishery Inspector on the proposed Cunnigar Bridge at Dungarvan. 1883 (306) lxiv. 159.

—Report of the Piers and Roads Commission, appointed under the Poor Relief (Ireland) Act, 1886, part II. 1887 [c. 5214] xxxviii. 271.

—Report by Colonel Fraser in reference to the expenditure of the grant in aid of the works undertaken by the Piers and Roads Commission in Galway and Mayo, in 1886–87, under the Poor Relief (Ireland) Act, 1886. 1889 [c. 5729] lx. 949.

—Report of the Congested Districts Board for Ireland, year ending 31st March. 1893 *et seq.*

[Gives details of road and bridge works undertaken.]

1892—1893 [c. 6908] lxxi. 525.
1893—1893 [c. 7266] lxxi. 583.
1894, Jan.—March—1894 [c. 7522] lxviii. 681.
1894–95—1895 [c. 7791] lxxix. 517.
*1895–96—1896 [c. 8191] lxviii. 53.
*1896–97—1897 [c. 8622] lxxii. 439.
*1897–98—1898 [c. 9003] lxxii. 481.
*1898–99—1899 [c. 9375] lxxvii. 755.
*1899–1900—1900 [cd. 239] lxviii. 183.
*1900–01—1901 [cd. 681] lx. 1.
*1901–2—1902 [cd. 1192] lxxxiii. 71.
*1902–3—1903 [cd. 1622] lv. 99.
*1903–4—1905 [cd. 2275] lxiii. 229.
*1904–5—1906 [cd. 2757] xcvii. 355.
*1905–6—1906 [cd. 3161] xcvii. 493.
*1906–7—1908 [cd. 3767] xxiii. 287.
*1907–8—1908 [cd. 4340] xxiii. 443.
*1908–9—1909 [cd. 4927] xvi. 1.
*1909–11—1911 [cd. 5712]

Sanders (R. B.) Irish county surveyorships and the grand jury system of Ireland. Assn. of Municipal and County Engineers and Surveyors, Proceedings, Vol. 20, pp. 251–271. 1894.

U.K. Govt. Bill to transfer to the Commissioners of the township of Kingstown certain roads and lands now vested in the Commissioners of Kingstown Harbour, and for other purposes. 1897 (156) iv. 87.

Dorman (R. H.) Main roads under County Councils in Ireland: *with discussion.* Assn. of Municipal and County Engineers and Surveyors, Proceedings, Vol. 25, pp. 28–37; *Surveyor*, Aug. 12, 1898.

U.K. Govt. Bill to transfer to the Commissioners of the township of Kingstown certain roads and lands now vested in the Commissioners of Kingstown Harbour, and for other purposes. 1898 (315) iv. 589.

*—Act 61 and 62 Vict., c. 52.

*Slippery condition of the roads (Dublin); Liability of highway authority (obstruction of highway). *Municipal Journal*, Dec. 19, 1902.

***U.K. Govt.** A return for the year ended 31st March, 1901, giving the name of each administrative county in Ireland; the mileage of roads (including main roads maintained in each rural district); the average cost of maintenance per mile of such roads (including main roads); the average cost of maintenance per mile of such main roads; and the total mileage, expenditure, and cost of maintenance of roads under each heading. 1902 (324) lxxxviii. 509.

Road making in Ireland. *Surveyor*, Dec. 1, 1905.

U.K. Govt. Bill to amend the law relating to the repair and maintenance of public roads in Ireland. 1905 (116) iv. 471.

The improvement of Irish roads: a county surveyor's opinion. *Surveyor*, Dec. 7, 1906.

Road maintenance in Ireland: direct labour *v.* contract system *Surveyor*, March 2, 9, 16, 1906.

***U.K. Govt.** Act to amend the Local Government (Ireland) Act, 1898, with respect to bridges. 1906. 6 Edw. VII, c. 31.

Leebody (J. W.) County road maintenance in Ulster. Assn. of Municipal and County Engineers, Proceedings, Vol. 33, pp. 120–132; *Surveyor*, May 24, 1907.

Dorman (R. H.) Road maintenance in France and Ireland. *Surveyor*, Dec. 4, 1908.

Irish roads. *Surveyor*, April 15 *et seq.* 1910.

Dixon (E. K.) The management and improvement of rural district roads. *Surveyor*, June 17, 1910.

Ennis (M. A.) Trunk roads [in Ireland]. *Surveyor*, April 22, 1910.

Irish Roads Congress. Records of proceedings. Dublin. 1910. 8vo, pp. 279.

Mecredy (R. J.) The road question from the users' point of view. *Surveyor*, May 13, 1910.

Bell (H. C.) Road work in rural districts. *Surveyor*, April 28, 1911.

Cowan (P. C.) The road question viewed generally. *Surveyor*, April 21, 1911.

Dorman (R. H.) Some notes on road maintenance in county Armagh. *Surveyor*, Aug. 20, 1912.

CONSTRUCTION AND REPAIR OF ROADS AND STREETS

1. General and Miscellaneous.

Beekman (John) History of invention and discoveries. Chapter on paving of streets.

Callanan. Roads and road-making.

Edgworth (J.) New mode of constructing streets.

McClanahan (T. S.) Roads and road drainage. Illinois Society of Engineers and Surveyors.

Nelson. Making and mending of country roads. *Harper's Weekly.*

North. Construction and maintenance of roads. *Engineering Magazine.*

Pope (Albert A.) Improvement of city streets.

Potter. The common roads of Europe and America. *Engineering Magazine.*

***Roads Improvement Association.** Our roads and how to treat them: a word with the British ratepayer, by Ab Initio. London. 12mo, pp. 4.

Torrey. Pavement construction and economies. Street Paving Exposition, Indianapolis.

Procter (Thomas) A profitable worke to this whole kingdome, concerning the mending of all highways, as also for waters and iron workes. 1610. 4to. C.31.d.6.

Gautier (Hubert) Traité de la construction des chemins . . . avec cinq difficultez qu'on propose aux sçavans à résoudre. 1716. Paris. 8vo. 785.e.17.(1).

—(New ed.) 1721. 56.b.17. Reprinted 1751.

—(3rd ed.) 1755. 56.b.18.

—(German ed.) 1773. Tractat von der Anlegung und dem Bau der Wege und Stadtstrassen . . 8806.d.

Phillips (Robert) A dissertation concerning the present state of the high roads of England, especially of those near London: . . . read before the Royal Society . . . 1737. 12mo, pp. [14] 62, *illus.*

Dupont. De l'administration des chemins. Paris. 1767. 8vo.

Essay for the construction of roads on mechanical and physical principles. [by Æ.] 1774. 4to. 101.k.59.

Parker (Thomas Netherton) An essay on the construction . . . of gates. 1804. 2nd ed. 8vo. 558*.a.12.

Wiebeking (Carl Friedrich von) Theoretisch-praktische Strassenbaukunde. Sulzbach. 1808. 8vo. 8776.a.

Parker (Thomas Netherton) An essay on the construction, hanging and fastening of a turnpike gate, turnwicket, etc. Oswestry. 1816. 8vo. 1044.h.27.(6). *Glasgow University Library.*

Clarke (James) Practical directions for laying out and making roads Dublin. 1818. 8vo. 1136.k.12.(1).

*Chambers (Abraham Henry) Observations on the formation, state and condition of turnpike roads and other highways, with suggestions for their permanent improvement on scientific principles by means of the natural materials of which they are composed; to which is added a practical system (on the like principles) for the construction of sound, substantial roads and under-drains by means of a patent substitute for hard road materials, where such substances are not practically available. 1820. 8vo, pp. 28. 1396.d.

*U.K. Govt. General rules for repairing roads, recommended by the Parliamentary Commissioners for the improvement of the mail coach road from London by Coventry to Holyhead, to the turnpike trustees between London and Shrewsbury. (2nd ed.) 1820. 8vo, pp. 8, *plate*.

—(3rd ed.) 1820.

Dupin (Francois Pierre Charles, Baron) Application de géométrie et de méchanique à la marine, aux ponts et chaussées . . . Paris. 1822. 4to. 715.h.17.

Cordier (Joseph L. Etienne) Ponts et chaussées. Essais sur la construction des routes, des ponts suspendus, etc. Extraits de divers ouvrages anglais. Lille. 1823–28. 8vo, 2 vols., and vol. of illustrations, fol. 8766.df.8. 14001.i.11.

Navier (Claude Louis Marie Henri) Rapport à M. Becquay . . . Directeur Général des Ponts, . . . et mémoire sur les ponts suspendus. Paris. 1823. 4to. 553.e.2., vol. of plates, 554.e.15.

—Auszug aus Navier's Abhandlung über die Hängebrücken, von J. F. W. Dietlein . . . Mit 10 Steindrucktafeln. Berlin, 1825. 4to, pp. 28. 8766.ee.6.

Donkin (Bryan) A paper read before the Institution of Civil Engineers on the construction of carriage-way pavements. 1824. 8vo, pp. 13. T.1157.(3).

Racss (C. von) Bruchstücke zur Theorie des Strassenbaues. Presburg. 1825. 8vo.

*Wood (Nicholas) A practical treatise on railroads. 8vo. 538.g.31.(1).

*—(2nd ed.) 1832. 1400.g.24.

*—(3rd ed.) 1838. 1136.h.12.
Chapter on turnpike roads.

*Strickland (William) Reports on canals, railways, roads, and other subjects, made to "The Pennsylvania Society for the Promotion of Internal Improvement." Philadelphia. 1826. Obl. fol., pp. vi, 51, 71 *plates*.

Arnd (Carl) Der Strassen-und Wegebau in staatswirtschaftlicher und technischer Beziehung. Darmstadt. 1827. 8vo, pp. xvi, 272. 8767.bb. 24.

—(2nd ed.) 1831.

Fall (Thomas) The surveyor's guide; or, every man his own road-maker. Retford. 1827. 12mo. 712.b.7. *Glasgow University Library*.

Matthaey (Carl Ludwig) Der Stein- oder Dammsetzer, oder Unterricht in der zweckmässigsten Construction und Pflasterung der Strassen in den Städten. . . Ilmenau. 1827. 12mo, pp. xvi, 142, 16 *plates*. Reprinted as Vol. XXVI of "Neuer Schauplatz der Künste." 8vo. 7945.a.

Sartorius (Georg Christian) Tascherbuch zum Behuf des Strassenbaues. Eisenach. 1827. 8vo.

Wölfer (Marius) Gründliche Anweisung zum Chaussée- und Brückenbau, sowie auch zum Planzeichnen und Nivelliren. Ilmenau. 1827. 4to.

Justi (F. G. L. v.) Theorie des Chausseebaus und seiner vorteilhaften Bearbeitung nach richtigen Grundsätzen. Hamburg. 1828. 8vo.

London Magazine for August, 1828. Article on Roads and Road Making.

Selig (F. W.) Praktische Anleitung zum Strassenbau. Cassel. 1829. 8vo.

Macneill (Sir John, LL.D.) Tables for calculating the cubic quantity of earthwork in the cuttings and embankments of canals, railway and turnpike roads. 1833. 8vo. 538.g.23.

—(2nd ed.) Dublin, 1846. 538.h.29.

Parnell (Sir Henry Brooke, *Baron Congleton*) Treatise on roads; wherein the principles on which roads should be made are explained and illustrated, by the plans, specifications, and contracts made use of by Thomas Telford, Esq., on the Holyhead Road. 1833. 8vo, pp. xii, 438, 5 *plans*. 1028.h.12.

—(2nd ed.) 1838. 1028.h.13.

Garnier (François Xavier Paul) Traité des chemins de toute espèce. 1834.

Mills (Robert) Substitute for railroads and canals; embracing a new plan of roadway. 1834.

Penfold (Charles) A practical treatise on the best modes of repairing roads. (Soc. for the Diffusion of Useful Knowledge—Library of Useful Knowledge. British Husbandry, Vol. III.) 1834. 8vo. 737.e.

Wedeke (J. C.) Theoretisch-praktisches Handbuch des Chausseebaues und Anleitung zum Veranschlagen desselben. Quedlinburg. 1835. 8vo. 8766.aaa. *Illus.*, fol., 14001.d.

Simms (F. W.) Treatise on the principles and practice of levelling . . . showing its application . . . in the construction of roads. With Mr. Telford's rules for the same. 1837. 8vo. 538.g.24.

—(2nd ed.) 1843. 1394.h.11.

—(4th ed.) 1856. 1396.f.14.

—(5th ed.) 1866. 8529.cc.32.

—(6th ed.) 1875. 8768.i.1.

Bloodgood (Simeon de Witt) Treatise on roads; their history, character and utility. Albany. 1838. 8vo. 1396.e.

Hughes (Thomas) The practice of making and repairing roads . . . 1838. 8vo, pp. 108. 1136.k.20.

Lee (Wm.) On modern carriage ways; being a paper read before the Sheffield Literary and Philosophical Society. Sheffield. 1843. 12mo. 8765.a.31.

Leahy (Edmund) Practical treatise on making and repairing roads. Cork. 1844. 8vo, pp. 12 and 306, *illus.* 8767.bb.18.

Gillespie (William Mitchell) A manual of the principles and practice of road making: comprising the location, construction, and improvement of roads (common, macadam, paved, plank, etc.) and railroads. New York. 1845. 8vo, pp. 372, *illus.* C. T. 399.

—(2nd ed.) 1848. 1396.f.3.

—(6th ed.) 1853. 8vo, pp. 372.

—(7th ed.) 1855. 8vo, pp. 372.

—(8th ed.) 1855 (?). C. T. 399.

—(9th ed.) 1868. 8776.aaa.

(10th ed.) 1871. By C. Staley. pp. 459. 8767.bbb.29. Bibliography pp. 4–6.

Cresy (Edward) Enclopædia of civil engineering, historical, theoretical and practical. 1847. 8vo. 1396.f.

—(New ed.) 1856. 2022.e.

Law (Henry) The rudiments of civil engineering, including a treatise on hydraulic engineering by George R. Burnell. 1848–52. 12mo, 4 parts. 8703.a.32.
—(5th ed.) 1869, with notes and illustrations by R. Mallet. 12mo. 8703.cc.25.
—(6th ed.) 1881. 12mo, pp. xxii, 638. 8767.b.13.
—(7th ed.) 1884. 8vo, pp. xxii, 638. 2249.b.
Chapters on roads and bridges.

Geddes (George) Observations on plank roads. 1850.

Law (Henry) Rudiments of the art of constructing and repairing common roads. . . . To which is prefixed a general survey of the principal metropolitan roads, by S. Hughes. 1850. 12mo. 8703.a.53.
—(2nd ed.) 1855. 8703.b.30.

Owen (Robert Dale) A brief practical treatise on the construction and management of plank roads. With an appendix containing the general plank road laws of New York. New Albany, 1850. 8vo. 1396.c.10.

Gregg (William) Essay on plank roads. 1851.

Kingsford (W.) History. structure, and statistics of plank roads [including a letter on plank roads by Charles E. Clarke]. 1852. 8vo. 8776.c.

Madras: *Public Works Dept.* Notes on building and road-making, with rules for estimating repairs to tanks and channels. . . . Madras. 1852. 8vo, pp. viii, 163, *illus.* *Patent Office.*
—(Another ed.) 1856. 8vo, pp. vii, 163, *illus.* 7820.ff.14.
Road-making. *Engineer*, March 16, 1860.

Rogers (Fairman) Lectures on the construction of roads and bridges. 1861.

Rankine (William John Macquorn) Manual of civil engineering. 1862. 8vo. 8766.b.27.
—(5th ed.) 1867. 8vo. 8766.aa.37.
—(7th ed.) 1871. 8vo. 8765.bb.2.
—(15th ed.) 1885. By W. J. Millar. 8vo, pp. xvi, 810. 2249.c.13.
—(19th ed.) 1894.
Sections on roads and bridges.

Williamson (William Crawford) The natural history of paving stones: a lecture. (Science Lectures, Series 2). 1866. 8vo. 8708.h.1.
—(Another ed.) 1871. 8706.bbb.

Thomason Civil Engineering College. Roads (Roorkee Treatise on Civil Engineering, Vol. II, Section VIII.) Roorkee. 1867. 8vo.
—(2nd ed.) 1870.
—(6th ed.) By A. M. Brandreth. 1904.

Mallet (Robert) (*ed.*) Rudimentary papers on the art of constructing and repairing common roads. Containing: I. A Survey of the metropolitan roads, by S. Hughes. II. The art of constructing common roads, by H. Law. III. Remarks on the maintenance of macadamised roads, by Sir J. F. Burgoyne. 1868. 4th ed. 12mo. 8703.cc.30.

Cobb (G. F.) Road paving. 187–.

Ahlburg. Der Strassenbau, mit Einschluss der Konstruktion der Strassenbrücken. Braunschweig. 1870. 8vo. 8775.ee.

Herschel (Clemens), Milla (S. F.), Onions (H.) Prize essays on roads and roadmaking. 1870.

Kaven (A. von) Einleitung zum Wege- und Eisenbahnbau und der Wegebau. 2nd ed. Hannover. 1870.

Byrne, Oliver, and Spon. Spon's dictionary of engineering, civil, mechanical, military, and naval. 1870–73. 4to, 4 vols., *illus.*
—(Supplement) 1881. pp. 1168.
Society for the encouragement of Arts, Manufactures, and Commerce. Report on the application of science and art to street-paving and street-cleansing of the metropolis. 1872. 8vo, pp. 34. Ac.4470–16.(11)
Appended is Sir Christopher Wren's plan for the rebuilding of London.
Bosc (Ernest) Etude sur les chaussées dans les grandes villes. Paris. 1873. 8vo.
Browne (Sir James F. M.) On the tracing and construction of roads in mountainous tropical countries. 1874.
Hall (J. A.) The formation of streets and highways. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. I, pp. 166–168. 1874.
Cantalupi (Antonio) Manuale ad uso degli ingegneri incaricati della compilazione dei progetti per le strade comunali. . . 2nd ed. Milano. 1875. 4to, pp. 376.
H. (G.) Der Wegebau im Lichte unsrer Zeit. Freiburg. 1875.
Sinsbaugh (L. W.) Digest of United States patents for paving and roofing compositions . . . and English paving compositions [with supplements for both to 1879] Washington, D.C. 1875. 8vo, pp. 128 and 53.
Dawson (George James Crosbie) Street pavements : a paper read before the Liverpool Polytechnic Society. [Society's *Journal*, pp. 15–75.] Liverpool. 1876. 8vo. 7942.g.6.(10)
Gillmore (Quincy Adams) A practical treatise on the construction of roads, streets, and pavements. New York. 1876. 12mo, pp. 258, *illus.* 8767.bb.1
Dobson (Edward) Pioneer engineering. . . . 1877. 8vo, pp. xxvi, 179. *Patent Office Library.*
Chapter on the selection of road lines.
Law (Henry) and **Clark (Daniel Kinnear)** Construction of roads and streets. 8vo, pp. 345. 8765.aa.11.
—(2nd ed.) 1881.
—(3rd ed.) 1887. 8767.aaa.29.
—(6th ed.) 1901. pp. 472. 8703.bbb.18.
—(7th ed.) 1907. Revised by A. J. Wallis-Tayler. 8vo, pp. 472, *illus.*
Deacon (G. Frederick) Street carriage-way pavements. Institution of Civil Engineers, Proceedings, Vol. 58. 1879.
Wilkins (Henry St. Clair) Treatise on mountain roads, live loads, and bridges. 1879. 8vo, pp. xii, 385, xxviii., *illus.* 8768 d.9
Willcocks (George Waller) Roads and roadways. 1879.
Ammon (K. E.) Die Unterhaltung der Kunst-Strassen : eine praktische Anleitung. (Deutsche Bautechnische Taschenbibliothek, Heft 45) Leipzig. 1875. 8vo, pp. 32. 7814.a.
—(Another ed.) 1880.
Wheeler (W. H.) Hints to highway surveyors on the repair of main roads. 1880. 8vo, pp. 21. 8767.e.18.
Hall (James) Roadways. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. 7, pp. 26–47. 1881.
Krüger (Richard) Handbuch des gesammten Strassenbaues in Städten. . . . Jena. 1881. 4to, pp. xxviii, 536. *Patent Office Library.*
Müller (E.) Der Chausseebau und seine Hülfswissenschaften. Jena. 1881. 4to, pp. VIII, 224, *diagrams.* *Patent Office Library.*

*Harcourt (E. W.) Maintenance of high roads. 1882. 8vo, pp. 13. 08226.i.23.(2).

Osthoff (Georg) Der Wege- und Strassenbau in seinem ganzen Umfange . . . . Ein Handbuch . . . für Ingenieure. (Deutsche Bautechnische Bibliothek, Hefte 87–90) Leipzig. 1882. 8vo, pp. 349, *illus.* 7814.a.

Boulnois (H. Percy) The municipal and sanitary engineers' handbook. 1883. 8vo, pp. xv, 394. 8777.d.21.

—(2nd ed.) 1892. pp. xvi, 445. 8777.bbb.21.

—(3rd ed.) 1898. pp. xviii, 474. 8777.g.18.

Buchanan. Road engineering. *Engineering News*, Sept. 15, 1883.

Scott (John) Farm roads, fences, and gates. 1883. 8vo, pp. vi. 123. 8703.ccc.46.

Birot (F.) Guide du conducteur des ponts et chaussées. Paris. 1884. 8vo, 2 parts. 8767.b.33.

Burrows (A. J.) The construction and maintenance of country roads: *with discussion.* Surveyors' Institution, Transactions, Vol. 16, pp. 232–274, *plans.* 1884.

McKie (H. U.) Setting out the transverse sections of streets for forming pavement. Association of Municipal and Sanitary Engineers' and Surveyors, Proceedings, Vol. 10, pp. 68–70. 1884.

—Tar macadam and concrete macadam pavement for roadways, and tar pavement and cement pavement for footways. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. 10, pp. 53–67. 1884.

Sears. Roads and road-making. *Engineering News*, Feb. 23; *American Engineer*, Feb. 15, 1884.

Asphalt *v.* wood pavements. *Engineering News*, May 30, 1885.

Cost of bad roads. *Engineering News*, Feb. 14, 1885.

Street pavements. *Iron Age*, Dec. 24, 1885.

*Burrows (A. J.) Roads: their construction and maintenance. ["Forestry"; reprinted by Cyclists' Touring Club in 1884/1885.] 1885. 8vo, pp. 20, *illus.*

Wilkes. Metallic pavements. *Engineer*, Dec. 25, 1885.

The effect of frost on roadways. *Van Nostrand's Engineering Magazine*, July, 1886.

Relative safety of asphalt and stone pavements. *Engineering News*, March 13, 1886.

Street pavings. *Iron Age*, June 24, 1886.

Brown. Gravel roads. *Engineering News*, April 24, 1886.

Cantalupi (A.) Trattato per la costruzione delle strade. Milano. 1886. 8vo, pp. 972. 8766.i.17.

Neville. Wood and asphalt street pavements. *American Engineer*, May 13, 1886.

Postu (Burton Willis) The road and the roadside. Boston. 1886. 8vo.

—(2nd ed.) 1897.

—(3rd ed.) 1893. 8vo, pp. xx, 250. *Patent Office Library.*

*Wheeler (W. H.) The repair and maintenance of roads. 1886. 12mo, pp. 32. *Mitchell Library.*

—(Another ed.) 1900.

Street grade intersections. *Engineering News*, March 5, July 9, 1887.

Strachan (George R.) Asphalt and concrete foot-pavements. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. 13, pp. 192–215; *Scientific American, suppl.*, Dec. 31, 1887.

Wheeler (W. H.) Repair and maintenance of roads. *Sanitary Engineering*, June 25, July 9, 1887.

Paving and Municipal Engineering. (Monthly.) 1887 *et seq.* Indianapolis.

Martelli (G.) Costruzioni stradiali: Oppunti presi alle lezioni . . . Scuola d' Applicazione degli Ingegneri in Milano. Milano. 1888. 4to, pp. irreg. *Patent Office Library.*

Sargent. Street pavements. *Scientific American, suppl.*, Jan. 14, 1888.

Essay on the construction of carriage pavements. 1889. Fol., pp. 30. 8775.g.21.(3)

Dennis (N. F.) Essay on carriage-way pavements. 1889. Fol., ff. 26. 8775.g.21.(2).

Greene (F. V.) Road-making. *Harper's Weekly*, Aug. 10, 17; *Engineering Record*, Aug. 10, 1889.

Haupt. Street pavements. Franklin Institute, *Journal*, Dec. 1889.

Herschel (Clemens) Road-making. *Engineering Record*, March 9, April 20, 27, May 4, 11, 1889.

Love (Edward G., *Ph.D.*) Pavements and roads: their construction and maintenance. Reprinted from the *Engineering and Building Record.* New York. 1889. 8vo, pp. 410. *Patent Office Library.*

Pope (Albert A.) Highway improvement. 1889.

Saunders (E. S.) Essay on carriage-way pavements in large cities. 1889. Fol., pp. 30. 8775.g.21.(1).

U.K.: *Local Government Board.* Report on road maintenance, by T. Codrington. 1889. 8vo, pp. 21. 8768.l.16.(7)

Pavements and paving materials. *Street Railway Journal*, July, 1890.

Repair and maintenance of roads in England. *Engineering News*, Sept. 13, 1890.

Baumeister (R.) Handbuch der Baukunde. Berlin. 1890. pp. 356, *illus.* [Contains chapters on street construction and cleaning.]

Dayton: *Committee of* 100. Report on street paving . . . Dayton, O. 1890. 12mo, pp. 45.

Greene (F. V.) The construction and care of streets. (Paper read before the Commonwealth Club of New York City.) *Engineering and Building Record*, March 1, 8, 1890.

Hooley. Main road maintenance. *Engineering Record*, Aug. 10, 1890.

Howard (J. W.) The cost of pavements. *Engineering News*, March 15, 1890.

Mathewson (L. W.) City streets: how to build them, and why. Ohio Society of Sanitary and Civil Engineers, 11th Annual Report, pp. 95–118. 1890.

Pope (Albert A.) The movement for better roads. The relation of good streets to the prosperity of a city. 1890.

Pritchard. Road construction and maintenance. *Engineering Record*, April 19, 26; May 3, 10, 1890.

Roads Improvement Association. Road maintenance. *Engineering News*, Aug. 16, 1890, *illus.*

Thompson (A. D.) Road construction and maintenance. *Engineering Record*, March 29; April 5, 12, 19, 1890.

Pavements in Liverpool. *Engineering Record*, Dec. 12, 1891.

Allen (C.) Instruction in highway engineering. Boston Society of Arts, Proceedings, June 11, July 2, 23, 1891.

Butts. Street paving material. *Engineering Record*, May 2, 1891.

Collingwood. Street pavements. *Engineering Record*, March 7, 1891.

Olcott (J. B.) Road making and maintenance. Boston. 1891. 8707.h.24(1).

Philadelphia: *Committee on Better Roads.* A move for better roads: essays on road making and maintenance and road laws . . . with a synopsis of other contributions and a review by . . . Lewis M. Haupt . . . also an introduction by William H. Rhawn. . . . Philadelphia. 1891. 8vo, pp. 319. 8768.e.19.

Platt (S. Sidney) Notes on the paving stones used at Rochdale. Assn. of Municipal and County Engineers and Surveyors, Proceedings, Vol. 17, pp. 260–273. 1891.

Potter (Isaac B.) The gospel of good roads.

—The profit of good country roads. *Forum*, Nov., 1891.

Shedd. Table of tests for street paving material. *Engineering Record*, Sept. 26, 1891.

Carriage-way pavements and paving. *Engineering*, July 22, 29; Aug. 12, 1892.

Fixing street grades. *Engineering News*, Aug. 25; Sept. 8, 1892, *illus.*

Our roadways. *Surveyor*, Feb. 11, 1892.

Pavements and paving materials. *Street Railway Journal*, Oct., 1892, *illus.*

Road construction and maintenance: prize essays, reprinted from *Engineering Record*. New York. 1892 8vo, pp. 109. 8767.b.8.

Barkhausen (Georg), Nessenius, Housselle (W.) Erdarbeiten: Strassenbau: Brückenbau. Berlin. 1892. pp. vi, 421, *illus.*

Byrne (Austin T.) A treatise on highway construction. New York. 1892. 8vo, pp. xxxiv, 686.
Bibliography, pp. iii–vi.

—(3rd ed.) 1896. pp. 771.

—(4th ed.) 1901. pp. 895.

—(5th ed.) 1908. pp. 1040, *illus.* 08766.d.42.

Dorman (R. H.) Road maintenance. Assn. of Municipal and County Engineers and Surveyors, Proceedings, Vol. 18, pp. 45–67. 1892.

Mead (D. W.) Comparative value of various pavements. Association of Engineering Societies, *Journal*, Dec., 1892.

Norrie (W.) Road construction and maintenance in the past. *Scots Magazine*, Aug., 1892.

Owen (James) Construction and repair of country roads. Abstracted in *Engineering Record*, Jan. 30, 1892.

—Disputed points in highway construction. American Society of Civil Engineers, Transactions, Nov. 19, 1892.

Thayer (W. W.) Street paving: its cost, character, and construction. Engineers' Club of Philadelphia, Proceedings, No. 2, pp. 115–135. 1892.

Good Roads, Vol. I–V. 1892–94. New York. 4to. *Patent Office Library*, F2.892.

Controverted questions in road construction. American Society of Civil Engineers, Transactions, Feb., 1893, pp. 76–129.

Roads and streets at the Columbian Exposition. *Engineering News*, Nov. 9, 1893.

American Road Machine Company. Good roads and how to make them . . . Lancaster, *Pa.* 1893. 8vo, pp. 48, *illus.* *Patent Office Library.*

Burr (W. H.) Good roads a necessity. Hartford, *Conn.* 1893. pp. 51. 8707.h.24.(2).

Gunn (O. B.) Modern street pavements. Association of Engineering Societies, *Journal*, Oct., 1893.

Hodgman (F.) Country roads and road-making. *Engineering News*, Aug. 10, 1893.

Isaacs (Lewis H.) Carriageway pavements for large cities. *Surveyor*, Dec. 14, 21, 28, 1893; Jan. 4, 11, 1894.

McClintock (W. E.) The care of existing highways. *Engineering Magazine*, May, 1893.

—Good country roads. *Engineering Record*, Dec. 23, 1893.

Owen (James) The construction of highways. Association of Civil Engineers of Cornell University, Transactions. 1893.
—Controverted questions in road construction. American Society of Civil Engineers, Transactions, Vol. 27, pp. 603–628. 1893.
Potter (Isaac B.) Country roads; an illustrated primer of road-making. 1893.
Building of roads in country towns. *Engineering News*, May 17, 1894.
Carriageway pavements for large cities. *Engineering News*, March 29, 1894.
Marking lines of streets. *Engineering News*, June 7, 1894.
Cappelin (F. W.) Street paving. Society of Engineers, Minnesota University, Year Book. 1894.
Dickinson (William L.) Roadways and street pavements. *Scientific American Supplement*, Aug. 11, 1894.
Fuller (William B.) Street grades and intersections. Association of Engineering Societies' *Journal*, Nov., 1894.
Herschel (Clemens) and **North (E. P.)** The science of road-making . . . Construction and maintenance of roads. New York. 1894. 8vo, pp. 156.
Isaacs (Lewis H.) Recent English views on paving. *Engineering Record*, Feb. 10, 1894.
Judson (W. P.) City roads and pavements suited to cites of moderate size. New York. 1894. 8vo, pp. 60.
—(2nd ed.) 1902. pp. 195, *illus. Patent Office Library.*
—(4th ed.) 1909. pp. 197, 69 *illus.*
Lagron (Arthur) Roads. *Engineering Record*, July 28, 1894.
Mason (Charles) Carriage-way pavements. Conference of Municipal and County Engineers, Jan. *Surveyor*, Jan. 18 and 25, 1894.
Meade (D. W.) Comparative value of different materials for paving. *Engineering News*, June 7, 1894.
Mountain (A. C.) Evolution of the modern road. Melbourne. 1894. 8vo.
Spalding (Frederick Putnam) A text-book on roads and pavements. New York. 1894. 12mo, pp. 213, *illus.*
—(2nd ed.) 1903. pp. 234, *illus.*
—(3rd ed.) 1908. pp. x, 340, *illus. Patent Office Library.*
Stone (Roy) Best roads for farms and farming districts: co-operative road construction. U.S.A. Dept. of Agriculture, Year-Book, pp. 501–504. 1894.
U.S.A. *Road Inquiry Office.* Bulletin 8. Earth roads: hints on their construction and repair, by Roy Stone. 1894.
—Bulletins. 1894 *et seq.* Washington. 8vo. 7053.e.52.
About paving materials. *Canadian Architect*, Dec. 1895.
Pavements. *Engineering Magazine*, March, 1895.
Paving in large cities. *Surveyor*, Aug. 23, 1895.
The paving of streets. *Surveyor*, June 13, 1895.
Boulnois (H. Percy) Construction of carriageways and footways. 1895. 8vo, pp. 143, iv, *illus. Patent Office Library.*
Frith (Henry) The romance of road-making. *Cassell's Family Magazine*, Oct. 1895, *illus.*
Howard (J. W.) Pavements, sidewalks, roads and bridges. *Engineering Magazine*, March, 1895.
***Liverpool:** *City Council.* Report upon various materials and methods of street paving. Proceedings, pp. 1263–74. 1895.
***U.S.A.** *Office of Road Inquiry.* Bulletin 11. Proceedings of the Virginia Good Roads Convention, held in Richmond, Va., Oct. 18th, 1894. Washington. 1895. 8vo, pp. 82.
*—Bulletin 17. Historical and technical papers on road building in the United States. Washington. 1895. 8vo, pp. 52.

Willmann (Leo von) Strassenbau. Als Ergänzung des I. Bandes des Handbuchs der Ingenieurwissenschaften, Kapitel VI, bearbeitet. (Fortschritte der Ingenieurwissenschaften II, 4.) Leipzig. 1895. pp. vii, 144, 21 *illus.*

Paving prices and conditions. *City Government*, Vol. I. 1896.

C. (W. J. E.) Sketch history of road paving. *Illustrated Carpenter and Builder*, Oct. 9, 1896.

Cooper (C. H.) Footways (*with discussion*) Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 22, pp. 309–328, *illus.*; *Surveyor*, July 17, 1896.

Howard (J. W.) Why good paving is essential to the success of a city. *Paving and Municipal Engineer*, April, 1896.

Landis (H. K.) Some neglected points in municipal work. *Municipal Engineering*, Sept., 1896.

Lefebvre (G.) Voie publique. Paris. 1896. 8vo, pp. viii, 520. 08766.aa.46.

Madden (M. B.) On pavements in general. *City Government*, Vol. I. 1896.

North (Edward P.) The influence of rails on street pavements. American Society of Civil Engineers, Nov., 1896.

Rockwell (Alfred Perkins) Roads and pavements in France. New York. 1896. 8vo, pp. vi, 107. *Patent Office Library.*

Snyder (George D.) Excavations in city streets. *City Government*, Vol. I. 1896.

Towle (Stevenson) Pavement construction and city growth. *Engineering Magazine*, Oct., 1896.

***U.S.A. Govt.** British highways. Consular Report, Sept., 1896.

—*Road Inquiry Office.* Circular 24. Highway repairing. Practical results of daily care of common roads, by J. O. Sanford; Canandaigua roads, by E. G. Harrison; road repairs and cash tax in Wisconsin, Iowa, and Indiana. Washington. 1896. 8vo, pp. 12.

Whinery (S.) The importance and economy of pavement maintenance. *Engineering Magazine*, Nov., 1896.

Underground construction in streets. *Municipal Engineering*, Dec., 1897.

Brown (Charles Carroll) Method of paving for street improvements. *Municipal Engineering*, Feb., 1897.

Genzmer (Ewald) Die st dtischen Strassen. Mit einer Einleitung, "Der städtische Tiefbau im allgemeinen," von Dr. Eduard Schmidt. Stuttgart. 1897. *Illus., maps.*

Grimshaw (Robert) Cross sections of European streets. *Municipal Engineering*, March, 1897.

Hoag (William R.) European roads. Association of Engineering Societies, *Journal*, April, 1897.

Howard (J. W.) The modern street rail and its relation to pavement. *Municipal Engineering*, Feb., 1897.

Lefebvre (Georges) Service municipal. Plantations d'alignement, promenades, parcs et jardins publics. Paris. 1897. 8vo, pp. viii, 357. 07077.g.16.

Merrill (Frederick) Road materials and road-building in New York. 1897.

Owen (James) Car tracks and pavements. *City Government*, Jan., 1897.

***U.S.A.:** *Office of Road Inquiry.* Circular 29. The forces which operate to destroy roads, with notes on road stones and problems therewith connected; by C. L. Whittle. Washington. 1897. 8vo, pp. 14, 4 *plates.*

Whitman (E. A.) Drainage of country roads. Association of Engineering Societies, *Journal*, April, 1897.

Wilcox (J. W.) Street inlets. *Municipal Engineering*, Oct., 1897.

Asphalt and brick pavements. *City Government*, May, 1898.

Sue confronto economico dei tracciati stradali. Societa degli Ingegneri e degli Architetti Italiani, *Annali*, Sept.–Oct., 1898.

Mr. Rosewater's rules for crowning paved streets. *Municipal Engineering*, May, 1898.

American Society for Municipal Improvement. Report of the Committee on Street Paving. *Proceedings*, part II. 1898.

—Reports on proposed forms of street construction. *Proceedings*, part II. 1898.

American Society of Civil Engineers. Road building. *Proceedings*, Oct., Nov., 1898.

Andrews (Horace) The proper curbing of streets. *Engineering Record*, Oct. 29; *Municipal Engineering*, Nov.; *City Government*, Dec.; American Society for Municipal Improvement, *Proceedings*, part II. 1898.

Barnes (William H.) A few things to be remembered in building good roads. *Stone*, Feb., 1898.

Bernard (H.) Étude comparative et raisonnée des différents genres de pavages. Paris. 1898. 8vo, pp. 200. 8775.eee.28.

***Dodge (Martin)** Steel track wagon roads. U.S.A. Department of Agriculture, Year Book, pp. 291–296. 1898.

***Eldridge (Maurice Owen).** Construction of good country roads. U.S.A. Department of Agriculture, Year Book, pp. 317–324. 1898.

Franklin (Benjamin) Some features of road construction. Engineers' Club of Philadelphia, *Proceedings*, Jan., 1898.

Frost (N. S.) Some considerations about roads. *Mining and Scientific Press*, Jan. 8, 1898.

Howard (J. W.) Better work and better prices for asphalt and other pavements. *Municipal Engineering*, Dec., 1898.

Maxwell (William H.) The construction of roads and streets. *Surveyor*, March 18 to June 10, July 8 to Aug. 5, Nov. 11 to Dec. 9, Dec. 23 to Jan. 6; Feb. 3, March 3, March 24 to April 14, April 28, June 2, 30, July 21, 28, Aug. 4. 1898–99.

—(Reprinted) 1899. "With historical sketch of the art of road-making." 8vo, pp. 256, *illus.* 8765.a.52.

North (Edward P.) A study of paving materials. *Engineering Record*, Dec. 3rd, 1898.

Tillson (George W.) The relative value of materials. American Society for Municipal Improvement, *Proceedings*, part II; *City Government*, Nov.; *Municipal Engineering*, Dec., 1898.

—A study of paving materials. *Engineering Record*, Nov. 26, 1898.

Watson (W. M.) Road materials and construction. *Canadian Engineer*, May, 1898.

Whittle (Charles Livy) Ancient and modern highways. *State's Duty*, Nov., 1898, *illus.*

City streets and country roads. *Municipal World*, Nov., 1899.

Comparative reports of general practice: paving of carriageways. *Surveyor*, March 24, 1899.

Country road construction in Ireland. *Engineering Record*, May 13, 1899.

The life of pavements. *Engineering Record*, Oct. 21, 1899.

Method of paving for street improvements. *Municipal Engineering*, July, 1899.

The paving promoter. *Engineering Record*, June 17, 1899.

The paving question. *Municipal and Railway Record*, Sept. 15, 1899.
Paving town streets. *Municipal World*, April, 1899.
The relative value of materials. *Public Improvement*, June 1, 1899.
Street grades. *Engineering Record*, Oct. 28, 1899.
The surface of roads: an ingenious recording instrument. *Surveyor*, Apr. 14, 1899, *illus.*
" Surveyor " exhibition of road-making materials and plant. *Surveyor*, Apr. 21, to June 9, June 23, July 21, 1899, *illus.*
May 5—Road-making and its history, by H. Percy Boulnois; Materials for road-metalling, by J. Vincent Elsden.
May 12—Road drainage and traction, by Sidney Stallard; Machinery used in connection with roads and tools used in road-making, by J. Patten Barber.
May 19—Covers for access to sewers, pipes, conduits, etc., and materials for town carriage-ways, by J. Patten Barber; Kerbs and gutters, footways, and roadmen's clothes, by H. T. Wakelam.
May 26—Notes on Irish materials used in road-making and other municipal work, by J. Munce.
June 2—Notes on the building stones of " The Quarry " exhibit, by J. Vincent Elsden.
June 9—Street and other name plates, by Francis Smythe.
June 23.—Tree-planting in streets and other places, by Francis Smythe.
July 21—" Surveyor " road-making exhibit, sections Q to V, by W. J. Bradley.

Blackford (Francis W.) Development of roads and street pavements. Association of Engineering Societies, *Journal*, April, 1899.

Bond (Edward A.) Maintenance of highways. *Engineering Record*, Nov. 18, 1899.

Campbell (A. W.) The influence of pavements on public health. *Sanitarian*, Feb., 1899.

Chase (Charles B.) Street grades. *Municipal Engineering*, June, 1899.

***Eldridge (Maurice Owen)** Good roads for farmers. U.S.A. Dept. of Agriculture, *Farmer's Bulletin* 95. Washington. 1899. 8vo, pp. 47, *illus.*

Fisher (Edwin A.) Street railways and street pavements. *Engineering Record*, Oct. 14, 1899.

Howley (R. J.) Roadway across bogs. *Engineering Record*, Aug. 19, 1899.

Lewis (Nelson P.) The relative value of materials. Brooklyn Engineers' Club, *Proceedings*, pp. 51–82. New York. 1899. 8vo, pp. 233.

Massachusetts Association. Systematic street repairing. Transactions, Vol. III, no. 33 (May). 1899.

Nicholl (T. J.) The paving question. *Street Railway Record*, Sept. 15, 1899.

Pickering (J. S.) New streets and buildings. *Sanitarian*, Jan. 1. 1899.

Richardson (H.) Statistics as to paving in use on carriage-ways of the principal towns and cities of Great Britain. Aston Manor. 1899. Fol.

Rust (Charles H.) Pavements between street railway tracks. *City Government*, Dec.; *Engineering Record*, Oct. 14; *Municipal Engineering*, Nov.; *Street Railway Record*, Dec. 15. 1899.

Tillson (George W.) The life of pavements. *City Government*, Nov. *Municipal Engineering*, Nov., 1899.

Woods (Robert P.) Street grades and cross sections in asphalt and cement. American Society of Civil Engineers, *Proceedings*, Mar. *Municipal Engineering*, Oct., 1899.
The Bingham paving. *Sanitary Record*, Nov. 2, 1900.
The life of pavements. *Surveyor*, Jan. 12, 1900.
Road maintenance in Kent. *Engineering Record*, Oct. 13, 1900.
Street paving. *Municipal World*, Nov., 1900.
Tests of road-making stone. *Surveyor*, Dec. 14, 1900.
Wood v. asphalt paving (in the City of London). *Surveyor*, May 11, 1900.
Aitkin (T.) Road making and maintenance; a practical treatise. 1900. 8vo, pp. 440. 08766.d.14.
—(2nd ed.) 1908. pp. 546., *illus*. 08766.d.32.
Allen (A. T.) Footpaths: their maintenance, construction, and cost. 1900. 8vo, pp. 37. 6146.f.33 (8).
—(2nd ed.) 1906.
Baker (Ira Osborn) Fallacies in good and road economies. *Technograph*, 1899–1900.
Campbell (A. W.) Road construction and system of control. Canadian Society of Civil Engineers, Oct. 25, 1900.
Caröe (D.) Streets and bridges. *Builder*, June 23, 1900.
Fish (Williston) The evolution of city streets. *Street Railway Record*, Aug. 15, 1900.
Howard (J. W.) What pavements do for a city. *Municipal Engineering*, June, 1900.
Hulbert (Archer Buller) The evolution of public roads. *Public Policy*, Feb. 24, 1900.
Johnson (Arthur Newhall) Road drainage. *Brick*, Aug. 1, 1900, *illus*.
Lewis (Nelson P.) Modern city roadways. *Popular Science Monthly*, March; *Public Improvement*, Aug., 1900.
Luten (Daniel B.) The smoothness of pavements. *Engineering Record*, March 31, 1900, *illus*.
Mills (Charles) Notes on road construction and maintenance. *Engineering Record*, April 21, 1900.
Tillson (George W.) Street pavements and paving materials. A manual of city pavements, the methods and materials of their construction; for the use of students, engineers, and city officials. New York. 1900. 8vo, pp. xii, 532, *illus*. *Patent Office Library*.
U.S.A. *Public Road Inquiries Office*. Circular 34. Social, commercial, and economic phases of the road subject. Washington. 1900. 8vo, pp. 8.
Whinery (S.) The economics of street paving. *Engineering Record*, Aug. 11 and 18; Transactions of Assn. of Civil Engineers of Cornell University. 1900.
—Pavements for streets and roads. *Engineering Record*, Aug. 25, 1900.
Some new ideas in road construction. *Engineering News*, June 6, 1901.
Allanson-Winn (R. G.) Road construction. Dublin. 1901. 8vo.
Barber (T. W.) Intercommunication in large towns. *Surveyor*, Aug. 16, 1901, *illus*.
Gillette (Halbert Powers) The design of economic streets and pavements. *Engineering News*, Sept. 5, 1901.
—Earth roads and earth work. *Engineering News*, July 25, 1901, *illus*.
—The economic value of paved roads. *Engineering News*, April 11, 1901.
—Economics of road construction. New York. 1901. 8vo, *illus*.
—(2nd ed.) 1906. pp. 49.

Greenwell (Allan) and **Elsden (James Vincent)** Roads; their construction and maintenance, with special reference to road materials. *Builder* Student's Series. 1901. 8vo, pp. 280, *illus.* 7817.bb.

Harcourt (Leveson Francis Vernon) Civil engineering as applied in construction. 1901. 8vo.

—2nd ed. 1910. By Henry Fidler. pp. xvi, 626. *Patent Office Library.*

***U.S.A.:** *Office of Road Inquiry.* Bulletin 21. Proceedings of the International Good Roads Congress at Buffalo, Sept. 16th–21st, 1901. Washington. 1901. 8vo, pp. 100.

Street (periodical). 1901 *et seq.* *Patent Office*, F.54/901.

Babcock (Charles E. P.) Pavements in general. Assn. of Engineering Societies, *Journal*, Aug., 1902.

Beaumont (W. Worby). Cost of road maintenance and road maintenance efficiency. *Engineer*, Oct. 24, 1902.

Buckley (E. R.) Highway construction. Association of Engineering Societies *Journal*, April, 1902.

Fitch (C. H.) Road grades. *Mining and Scientific Press*, Sept. 6, 1902.

Gillette (Halbert Powers) The cost of brick and stone block pavements. *Engineering News*, July 24, 1902.

—Methods of reducing the cost of contractors' work on road construction. *Engineering News*, March 27, 1902.

—Some observations upon the binding of sand by stone dust. *Engineering News*, May 15, 1902.

McDonald (James H.) Streets and pavements. Association of Engineering Societies, *Journal*, April, 1902.

Price (John) Roads. *Quarry*, Dec. 1, 1902.

***U.S.A.:** *Office of Public Road Inquiries.* Bulletin 22. Proceeding, of the third annual Good Roads Convention of the Boards of Supervisors of the State of New York, held at Albany, N.Y., Jan. 28th–29th, 1902. Washington. 1902. 8vo, pp. 63.

*—Bulletin 23. Road conventions in the Southern States, and object-lesson roads constructed under the supervision of the Office. Washington. 1902. 8vo, pp. 89, *illus.*

*—Bulletin 25. Proceedings of the Jefferson Memorial and Inter-State Good Roads Convention, held at Charlottesville, Va., April 2–4, 1902. Washington. 1902. 8vo, pp. 60, *illus.*

Weicht (A. H.) Bau von Strassen und Strassenbahnen. 1902.

Paving of streets: Glasgow deputation's conclusion. *Surveyor.* Jan. 30, 1903.

Aitken (Thomas) Testing road surfaces by the viagraph. *Quarry*, Feb. 1, 1903.

Baker (Ira Osborn) A treatise on roads and pavements. New York. 1903. 8vo, pp. 655, *illus.* 08766.d.28.

—(Reprint.) 1908.

Diehl (George C.) Good roads. Association of Engineering Societies, *Journal*, Oct., 1903.

***Glasgow:** *City Council.* Report upon street paving and conduit systems of the chief towns of England and the Continent. Police Department, *Minutes*, 1902–03, pp. 345–347.

London, Liverpool, St. Helens, Paris, Vienna, Berlin, Hamburg, Hanover, Brussels.

Latham (F.) Construction of roads, paths, and sea defences. With portions relating to private street repairs, specification clauses, prices for estimating, and engineer's replies to queries. 1903. 8vo, pp. 221. 08766.c.55.

Owen (James) A few thoughts on present practice of road construction. *Engineering Record*, April 25, 1903.

Palmer (P. H.) Street carriage-way pavements. *Surveyor*, June 26, 1903.

Raymond (W. F.) Improved streets and their repairs. *Municipal Engineering*, July, 1903.

Rogers (F. F.) Pavements for small cities. *Municipal Journal and Engineer*, March, 1903.

***Royal Institute of Public Health.** Public Health Congress handbook: issued by the Local Executive Committee; edited by E. W. Hope. Liverpool. 1903. 4to, pp. 330, *illus.*
pp. 128–136. Account of road-making and road-cleaning methods in Liverpool.

***U.S.A.:** *Department of Agriculture, Bureau of Chemistry.* Bulletin 79. Testing of road materials, including methods used and results obtained in Road Material Laboratory . . . by L. W. Page and A. S. Cushman. Washington. 1903. 8vo, pp. 77, *illus.*

*—*Office of Public Road Inquiries.* Bulletin 24. Proceedings of the North Carolina Good Roads Convention, held at Raleigh, Feb. 12–13, 1903. Washington. 1903. 8vo, pp. 72, *illus.*

*—Bulletin 26. Proceedings of the National Good Roads Convention, held at St. Louis, Mo., April 27th to 29th, 1903. Washington. 1903. 8vo, pp. 80, *illus.*

Whinery (S.) Some observations on street pavements. *Engineering News*, Oct. 22, 1903.

Alvord (John W.) The available paving material. *Municipal Journal and Engineer*, July, 1904.

Dow (A. W.) The economic designing of pavements. *Municipal Engineering*, Jan., 1904.

Drummond (R.) The evolution of road making in Scotland. Paper read before the Scottish Automobile Club. 1904.

Fox (F.) River, road, and rail: some engineering experiences. 1904. 8vo, pp. 230, *illus.*

Hasluck (Paul N.) Road and footpath construction. 1904.

Maxwell (William H.) British progress in municipal engineering. (National Engineering and Trade Lectures, Vol. I.) 1904. 8vo.

Pfeiffer (Louis M.) Street pavements. *Municipal Engineering*, April, 1904.

Brick *versus* asphalt pavements. *Brick*, Dec., 1905, *illus.*

New road-paving material. *Scientific American*, Nov. 18, 1905.

Paving materials and heat conductivity. *Surveyor*, July 14, 1905.

*Perforated iron as a road foundation. *Municipal Journal*, March 10, 1905.

Road-making literature. *Surveyor*, Dec. 1, 1905.

*Surveyors in conference. *Municipal Journal*, June 30, 1905.
Notes on road maintenance and on effect of traffic on road surfaces.

Allen (A. Taylor). New streets: laying out and making up. 1905. 8vo, pp. 175. 6426.dh.39.

Eldridge (Maurice O.) Mending our ways. *Outing*, Oct., 1905.

Gillette (Halbert Powers). Handbook of cost data for contractors and engineers. A reference book giving methods of construction and actual costs of materials and labour on numerous engineering works. Chicago. 1905. 8vo, pp. 610, 30 *illus.*

—(2nd ed.) 1910. pp. 1854, *illus.*
Section IV, on cost of roads, pavements, walks, etc.

Green (Walter L.) The paving of roadways. *Surveyor*, Dec. 1, 1905.

***Halstead (Marshal)** Good roads. *U.S.A. Monthly Consular and Trade Reports.* Oct., 1905.

Johnson (A. N.) The need of systematic instruction in highway engineering. *Engineering Record*, July 8, 1905.

Lavell (Charles) The viagraph: an instrument for measuring road wear. *Scientific American*, May 13, 1905.

Löwe (F.) Krümmungshalbmesser und Breite der Strassenwendeplätze. *Zeitschrift der österreichischen Ingenieur- und Architekten-Vereines*, Aug. 25, 1905.

Sennett (A. R.) Garden cities in theory and practice. 1905. 8vo. 2 vols.
Many references to road location and construction.

Tabor (J. G.) Sensible walks and driveways. *Country Life*, Oct., 1905.

Wallace (Henry) How to make good dirt roads. 1905.

Country roads: suggestions for improvement. *Surveyor*, Feb. 23, 1906.

A plan for elevated sidewalks. *Engineering Magazine*, Aug., 1906.

The projected road experiments at Esher. *Surveyor*, Sept. 28, 1906.

Residence streets. *Scientific American Supplement*, March 24, 1906.

The road question. *Surveyor*, Feb. 23, 1906.

Baker (Ira Osborn) Benefits of pavements. *Municipal Engineering*, June, 1906.

Baker (Ira Osborn) Drainage of earth roads. 1906.

—Problems of highway maintenance. *Engineering Magazine*, June, 1906.

East (Sir Gilbert Clayton) The forgotten art of road mending. *Royal Automobile Club Journal*, Jan. 4, 1906.

Folwell (A. Prescott) Street designing. *Municipal Journal and Engineer*, June 6, 1906.

Grosvenor (G.) Burning roads. *Country Life*, April, 1906.

***Harrison (Arthur)** Paving for side streets. *Municipal Journal*, April 27, 1906.

Howard (J. W.) Pavements and paving materials: the importance of preliminary tests. *Surveyor*, Aug. 17, 1906.

Institution of Civil Engineers. *Proceedings*. A plea for better country roads, by G. R. Jebb. Country roads for modern traffic, by J. E. Blackwall. 1906. 8vo, pp. 87.

Quinton (Keith) Science and the manufacturer. 1906. 8vo.
Chapter on "Cements, bricks and road making."

Tillson (George W.) Evolution of street pavements. *Municipal Journal and Engineer*, June 6, 1906.

***U.S.A. Govt.** *Monthly Consular and Trade Reports*, Jan., pp. 241–244; Dec., pp. 189–191. 1906.

*—*Office of Public Roads:* Bulletin 27. The construction of sand-clay and burnt-clay roads, by William L. Spoon. Washington. 1906. 8vo, pp. 19, *illus.*

Wakelam (H. T.) Road construction, maintenance, improvements and subsidies: *with discussion*. Association of Municipal and County Engineers, Proceedings, Vol. 32, pp. 415–439. 1906.

*Highway maintenance under modern conditions. Summaries of papers read at conference of Municipal and County Engineers, 1907. *Municipal Journal*, June 28, 1907.

How to compute the cross-section of a curved street paving. *Engineering-Contracting*, June 12, 1907.

*Municipal paving: a symposium. *Annals of the American Academy of Political and Social Science*, May, 1907, pp. 559–600.

Notes on foreign pavements. *Engineering Record*, Jan. 19, 1907.

Pavements. American Society of Civil Engineers, *Proceedings*, Aug., Sept., 1907.

The "perfect" pavement. *Surveyor*, Aug. 30, 1907.

Repairing roads by half-widths. *Surveyor*, March 29, April 12, 1907.

The resurfacing of roads: Staines and Winchester experiments. *Surveyor Suppl.*, Aug. 30, 1907.

Road resurfacing experiments in Cornwall: St. German's Surveyor's interesting report. *Surveyor*, Nov. 29, 1907.

The viagraph. *Scientific American Supplement*, March 2, 1907, *illus.*

Aitken (Thomas) Construction and maintenance of roads. *Surveyor*, June 28, 1907.

Association of Municipal and County Engineers. Discussion on road maintenance. *Proceedings*, Vol. 33, pp. 300–336. 1907.

Brodie (J. S.) Road requirements of the future. Association of Municipal and County Engineers, Proceedings, Vol. 33, pp. 291–297; *Surveyor*, July 5, 1907.

Buckley (Ernest Robertson) Public roads, their improvement and maintenance. Jefferson City. 1907. pp. 13 and 124, *plans.*

Chilvers (George W.) Surburban roads: sanitary construction and maintenance. *Surveyor*, Aug. 23, 1907.

Debaure (A.) Construction et entretien des routes et chemins. 1907. pp. 480. 08766.dd.11.

Gladwell (Arthur) Highway maintenance and repair: specification of a system of repairing and re-surfacing existing roads. *Surveyor*, Jan. 4, 1907.

Goodhue (W. F.) Municipal improvements. A manual of the methods, utility and cost of public improvements, for the municipal officer. 3rd ed. 1907. pp. viii, 207, *illus.*

Two chapters on street surfaces and street grades, and one on highway bridges.

Hirst (Arthur R.) Road pamphlets (Wisconsin Geological and Natural History Survey). 1907.

No. 1—Earth roads.
No. 2—The earth-road drag.
No. 3—Stone and gravel roads.
No. 4—Culverts and bridges.

Hooley (E. P.) Road requirements. Association of Municipal and County Engineers, Proceedings, Vol. 33, pp. 277–286; summary in *Surveyor*, July 5, 1907.

Howard (J. W.) Hardening roads by surface applications. *Engineering Magazine*, June, 1907.

Lovegrove (E. J.) The maintenance of highways: paper read before the conference on highways. *Municipal Journal*, June 28, July 5, 1907.

McCullough (Ernest) Engineerin work in towns and small cities. New York. 1907.

—(2nd ed.) Chicago, 1908. 8vo, pp. 510, *illus.*

Patton (W. M.) Treatise on civil engineering. New York. 1907. 8vo.

—(2nd ed.) 1907. pp. 1672, 464 *illus.*

Pope (A. A.) Good roads and the nation's prosperity. *Harper's Weekly*, March 16, 1907.

Smith (Francis P.) Paving specifications and inspection. *Municipal Journal and Engineer*, Aug. 7, 1907.

Spoon (W. L.) Clay road building. *Engineering Magazine*, Jan., 1907.

Tillson (George W.) The development of street pavements. *Franklin Institute Journal*, June, 1907, *illus.*

Valente (Nicolo) Sui migliori sistemo di pavimentazione delle strade comunali e provinciali dal punto di vista della loro efficacia e della piu economica manutenzione. *Revista Generale di Ferrovie*, Aug. 11, 1907.

Whinery (Samuel) Specifications for street roadway pavements. New York. 1907. 8vo, pp. 56.

Concerning roads, English and American: a contrast and its explanation. *Engineering News*, Sept. 24, Oct. 15, 1908.

The control of street openings. A discussion concerning an ultimate remedy for the destruction of city pavements by openings. 1908.

*The ideal pavement. *Municipal Journal*, April 10, 1908.

*Paving of tramway tracks: wood or granite? *Municipal Journal*, Aug. 7, 1908.

Political economy of good roads. *Scientific American*, Dec. 19, 1908.

Bacher (Jakob) Neuere Bestrebungen auf dem Gebiete der Strassenpflege. *Oesterreichische Wochenschrift für die öffentliche Baudienst* June 13, 1908, *illus.*

Baker (Ira Osborn) The maintenance of macadam and other roads American Society of Civil Engineers, *Proceedings*, Aug., Sept., 1908. *illus.*

Brandt (Charles Edward) Road locating and building simplified. For use in the common schools. 1908. 8vo. pp. 106, *illus.*

Brown (A.) Present-day road requirements in town and country. *Surveyor*, Feb. 21, 1908.

Byrne (Austin T.) and **Phillips (Alfred E.)** Highway construction: a practical guide to modern methods of roadbuilding and the development of better ways of communication. 1908. 8vo, pp. 136, *illus.*

Clausen (G. L.) The evolution of pavements. *Municipal Engineering*, June, 1908.

Coane (John M.), Coane (Henry E.) and **Coane (John M., jun.)** Australasian roads. A treatise, practical and scientific, in the location, design, construction and maintenance of roads and pavements. Melbourne. 1908. 8vo, pp. 334, 13 *illus.*

Road engineering in other countries, for the guidance of Australasians.

***Hele-Shaw (H. S.)** and **Mackenzie (Douglas)** The problem of road construction, with a view to modern and future requirements. *Journal of the Royal Society of Arts*, Feb. 28; *summarised in Engineering Magazine*, May; *Scientific American Supplement*, July 25, 1908.

Henry (Philip W.) The future road: its wearing surface. *Engineering Record*, Oct. 31, 1908.

Hooley (E. P.) Modern road management. International Roads Congress; *summarised in *Municipal Journal*, Oct. 16; *Engineering Record*, Nov. 7, 1908.

Hosking (Harold A.) Road improvements and resurfacing experiments. *Surveyor*, Oct. 2, 1908.

Howard (J. W.) Good pavements and how to secure them. *Municipal Engineering*, March, 1908.

Humphreys (H. Howard) The commercial use of highways. *Surveyor*, Feb. 14, 1908.

Judson (William Pierson) Road preservation and dust prevention. New York. 1908. 8vo, pp. 146, *illus.* 08767.bb.6.

Kelsey (Louis C.) Roads and streets. Association of Engineering Societies, *Journal*, Oct., 1908.

Layritz. Geschichte der Landstrassen. *Zeitschrift des Mitteleuropäischen Motorwagen-Vereines*, Aug. 31, 1908.

Metcalfe (A. J.) Treatment and formation of road surfaces. Society of Engineers, *Proceedings*, March 2, 1908.

Morrison (Charles Edward) Highway engineering. 1908. 8vo, pp. 315, *illus.* 08767.d.5.

Newton (E. B. B.) Some points in road construction. *Surveyor*, March 13, 1908.

Paris: International Road Congress. Exposition annexée au Congrès catalogue et notices relatives aux objets exposés. Paris. 1908. 8vo, pp. 185, *illus.*

Phillips (Alfred Edward) and **Byrne (Austin T.)** Highway construction. Chicago (American School of Correspondence). 1908. pp. 136, *illus.*

Rexford (E. E.) How to get good roads. *Outing*, June, 1908.

U.K. Army: *Royal Engineers.* Manual of road construction and maintenance, by Major E. M. Paul. Chatham. 1908. 8vo, pp. 164, *illus.* 08766.c.33.

White (Linn) The mineral rubber pavement. *Municipal Engineering*, Dec., 1908.

***U.S.A.:** *Office of Public Roads.* Circulars 89–90. Progress reports of experiments in dust prevention, road preservation, and road construction. Washington. 1908–9. 8vo, pp. 26 and 23.

Extracts from papers before the British Road Conference of 1909. *Engineering News*, Dec. 16, 1909.

Homogeneous "double-sealed" road. *Surveyor*, April 23, 1909.

*Main roads: modern methods and materials. *Municipal Journal*, Oct. 8, 1909.

Methods of constructing roads over soft ground. *Engineering-Contracting*, June 30, 1909.

Side walks and curb design and construction. *Municipal Engineering* Oct., 1909.

The theory of economical road and street design. *Engineering-Contracting*, April 14, 1909.

Unnecessary width of country roads and city streets. *Engineering News*, July, 1909.

Blair (William Nisbet) Construction and maintenance of roads. *Surveyor*, May 7, 1909.

Brainard (Albert S.) A practical road talk. *Cornell Civil Engineer*, May, 1909, *illus.*

Campbell (D. McD.) Notes on highway improvements. *Canadian Engineer*, Jan. 8, 1909.

Carpenter (F. G.) Road maintenance. *Surveyor*, May 7, 1909.

***Crompton (R. E. B.)** The revolution in road engineering. *Local Government Review*, Dec., 1909.

Crompton (R. E. B.) Road construction and maintenance. *Autocar*, Jan. 30, 1909.

Eldridge (Maurice O.) Earth roads. *Canadian Engineer*, Sept. 24, 1909.

Findlay (J. R.) The problem on roads. *Surveyor*, Sept. 10, 1909.

Flagg (E.) Road-building and maintenance; with examples of French and English methods. *Century Magazine*, Nov., 1909.

Fletcher (A. B.) Testing of road materials. *Engineering Magazine*, Oct., 1909.

Fulweiler (W. H.) The development of modern road surfaces. Franklin Institute, *Journal*, Sept., 1909, *illus.*

Greatorex (Albert D.) Construction and maintenance of roads, wear and tear, etc. *Surveyor*, May 7, 1909.

Harpur (William) Width of roads and provision of footpaths. *Surveyor*, May 7, 1909.

Hart (Albert V.) The construction and maintenance of roads. *Surveyor*, Feb. 19, 1909.

***(Institution of Municipal Engineers:** summary of papers read at first meeting). *Municipal Journal*, Jan. 22, 1909.

MacDonald (James H.) Sub-grade preparation in road-construction. *Engineering-Contracting*, Sept. 22, 1909.

McLean (W. A.) The road surface. *Canadian Engineer*, Nov. 5, 1909.

Mallock (Henry Reginald Arnulph) Construction and wear of roads. Institution of Civil Engineers, *Transactions*. 1909.

Manning (George W.) Some methods of modern road construction. *Surveyor*, Feb. 26, 1909.

Marr (William W.) A new method of grading and draining street intersections. *Engineering News*, Oct. 7, 1909, *illus.*

Phillips (George A.) Construction and maintenance of roads. *Surveyor*, May 7, 1909.
Account of methods in Glamorgan.

Powell (George C.) Street pavements. *Canadian Engineer*, Jan. 29, 1909.

Stabilini (Giulio) Sulla pendenza delle strade ordinarie. *Monitore Techniche*, April 30, 1909, *illus.*

Turner (Harold) Concave *v.* convex roads. *Surveyor*, April 16, 1909.

***U.S.A.:** *Office of Public Roads.* Exhibit at Alaska-Yukon-Pacific Exposition. Washington. 1909. 8vo, pp. 23, *illus.*

***Unwin (Raymond)** Town planning in practice: an introduction to the art of designing cities and suburbs. 1909. 8vo, pp. 416, *illus.*

Vandone (Italo) Per la manutenzione delle strade ordinarie. *Monitore Techniche*, Nov. 20, 1909.

Vinsonneau (Jules) Le route moderne. Paris. 1909.

Wakelam (H. T.), *and others.* Road construction, curves, gradients and camber. *Surveyor*, May 14, 1909, *illus.*

Warren (George C.) Paving practice with respect to crowns of roadway pavements and concrete foundations. *Engineering-Contracting*, Nov. 19, 1909.

Construction, maintenance, and control of roads (discussion at Irish Road Congress. *Builder*, May 7, 1910.

Economies of street pavements. *Engineering-Contracting*, Jan. 12; *Municipal Journal and Engineer*, March 2, 1910.

False economy. *Builder*, July 2, 1910.

Maintenance and administration of roads. *Nature*, Aug. 4, 1910, pp. 160–163.

Modernising English roads. *Royal Automobile Club Journal*, March 3, 1910.

A new surface for roads. *Harper's Weekly*, Jan. 1, 1910.

*The repair and maintenance of public footpaths, by "Expertus." *Local Government Review*, Aug., 1910.

Roads: administration, construction, and maintenance. *Sanitary Record*, March 31 *et seq.*, 1910.

The value of rise-and-fall elimination on streets and roads. *Engineering News*, July 14, 1910.

Anderson (Clark G.) Correlation of sidewalk and curb grades. *Engineering-Contracting*, Nov. 9; *Municipal Engineering*, Nov., 1910.

Blanchard (Arthur H.) The economics of modern highway engineering. *Engineering Record*, Oct. 22, 1910.

Boulnois (H. Percy) The dimensions of roads and streets. *Surveyor*, April 15, 1910.

***Cardiganshire:** *County Council.* Report on comparative cost of different materials and methods of road construction. *Minutes*, Nov., 1910, p. 27.

Doane (F. W. W.) Width of roads. *Canadian Engineer*, Jun 23, 1910.

*Frost (H.) The art of road-making: treating of the various problems and operations in the construction and maintenance of roads, streets, and pavements. New York. 1910. 8vo, pp. xvii, 544. 08767.h.40.
With bibliography.

Grantham (R. F.) The upkeep of roads. *Builder*, May 7, 1910.

Grantham (R. F.) and Menzies (William) Road construction and maintenance: *with discussion*. Surveyors' Institution, Transactions, Vol. 42, pp. 423–470; Vol. 43, pp. 27–60; *Surveyor*, May 20; summary in *Estates Gazette*, April 30, 1910.

Gullan (Hector F.) Road construction and maintenance in large cities. *Surveyor*, Sept. 2, 1910.

Hooker (S. Percy) Continuous and systematic road maintenance. *Engineering Record*, Oct. 8, 1910.

Hooley (E. Purnell) Modern road repairs. *Surveyor*, Apr. 15, 1910.

Lynch (John M.) The maintenance of roads. *Surveyor*, Sept. 9, 1910.

Manning (G. W.) Waterproofing road surfaces; *with discussion*. Association of Municipal and County Engineers, Proceedings, Vol. 36, pp. 336–346. *Surveyor*, May 20; summary in *Sanitary Record*, May 19, 1910.

Mathison (Joseph) Road-crust construction. *Surveyor*, Apr. 22, 1910.

Maxwell (W. H.) Modern conditions affecting the road engineer. *Surveyor*, Apr. 15, 1910.

Page (Logan Waller) Road administration and maintenance. Franklin Institute, *Journal*, May, 1910.

Triggs (H. I.) Town planning: past, present and possible. 1910. 8vo, pp. 334, *illus.*

Turner (Harold G.) Convex, concave, and centre-channel roads. *Surveyor*, Apr. 22, 1910.

*U.S.A. *Office of Public Roads*. Circular 92. Progress report of experiments in dust prevention and road preservation. Washington. 1910. 8vo, pp. 32.

Wade (W.) Modern road-making. *Municipal Journal*, Vol. 19. 1910.

Warren (George C.) Work preliminary to road construction and street pavement maintenance. *Engineering-Contracting*, Sept. 28; *Sanitary Record*, Dec. 1, 1910.

Wood (Francis) A new form of road construction. *Sanitary Record*, Oct. 27, 1910.

*—Road construction. *Municipal Journal*, Oct. 29, 1910.

Roberts (R. O. Wynne) The road problem. *Contractor's Record*, Nov. 23; *Surveyor*, Dec. 30, 1910.

Zahnise (G. B.) Suggestions for a rational formula for street pavement crowns. *Engineering News*, May 5, 1910.

Good roads that are permanent. *Scientific American*, July 29, 1911.

Highway engineering as a profession. *Scientific American*, Oct. 7, 1911.

"Modern" pavement construction. *Canadian Engineer*, March 2, 1911.

Paving and the care of streets. *Engineering Record*, Oct. 28, 1911.

The problem of the highways. *Surveyor*, Jan. 20, 1911.

Road-making as a reform measure. *Surveyor*, April 22, 1911.

Service test of road materials by the Road Board of Great Britain, and a description of various English proprietory paving materials. *Engineering-Contracting*, Aug. 30, 1911.

*B. (E.) Municipal engineering. *Local Government Review*, Jan., March, 1911.

Blanchard (Arthur H.) and **Drowne (H. B.)** Highway engineering as presented at the Second International Road Congress, Brussels, 1910. New York. 1911. 8vo, pp. x, 299.

Bowes (H. P.) The grading of materials in the aggregate. *Canadian Engineer*, March 23, 1911.

Bryce (John) The engineering aspect of town planning. *Surveyor*, Sept. 29, 1911.

Crosby (W. W.) Problems of road construction. *Engineering Record*, Nov. 25, 1911.

Edy (John N.) Practical road building. *Municipal Engineer*, Dec. 1911, Jan. 1912.

***Encyclopædia Britannica.** 11th ed. Article "Roads and Streets." 1911.

Gladwell (Arthur) Road makers and road users. *Surveyor*, Aug. 18 *et seq.*, 1911.

Hayler (Guy Wilfred) The street of to-day and to-morrow. *Surveyor*, June 9, 1911.

Institution of Municipal and County Engineers. Housing and town planning conference . . . 1911. Edited by Thomas Cole. 1911. 8vo, pp. xvi, 249, *illus.*

Lewis (N. P.) Adaptability of roads and pavements to local conditions. *American City*, Dec., 1911.

Lowsley (S. E.) Road construction. *Contractors' Record*, Jan. 25, 1911.

Maybury (H. P.) Highway improvement and maintenance. *Surveyor*, Aug. 18, 1911.

Owen (James) Maintenance of roads and pavements. *Engineering Record*, Nov. 25, 1911.

Richardson (Clifford) The road problem in the light of our present information. *Engineering Record*, May 27, 1911.

Robinson (C. M.) Width and arrangement of streets. *American City*, Dec., 1911.

Royal Institute of British Architects. Town Planning Conference, London, 1910: transactions. 1911. Large 8vo, pp. xvi, 812, *illus.*

City development [London], by W. E. Riley (pp. 291–305); Town planning in relation to old and congested areas, with special reference to London, by Arthur Crow (pp. 407–432). The civic survey of Edinburgh, by Patrick Geddes (pp. 537–574); Greater London, by G. L. Pepler (pp. 611–627); Glasgow city improvements, by A. B. McDonald (pp. 654, 655).

Rutter (H. F.) Wood and asphalte pavements. Association of Municipal and County Engineers, Proceedings, Vol. 37, pp. 627, 628. 1911.

Stabilini (Giulio) Sull' andamento planimetrico e sul profilo trasversale delle strade di grande comunicazione. *Monitore Techniche*, May 10, 1911, *illus.*

Tillson (George W.) Merits of various street paving materials. *Engineering Magazine*, Dec., 1911.

—The selection of street pavements. *Engineering-Contracting*, Oct. 18, 1911.

—The width of street pavements—II. The influence of surface conditions. *Municipal Engineering*, July, 1911.

Travilla (J. C.) What is the best street pavement? *Municipal Engineering*, Sept., 1911.

***U.S.A.** *Office of Public Roads.* Bulletin 36: Descriptive catalogue of the road model exhibit. Washington. 1911. 8vo, pp. 20, 14 *plates.*

*—Circular 94: Progress report of experiments in dust prevention and road preservation, 1910. Washington. 1911. 8vo, pp. 56.

Webster (George S.) The width of street pavements—I. The influence of sub-structures. *Municipal Engineering*, July, 1911.
Wynne-Roberts (R. O.) The Road Board specifications. *Surveyor*, June 16 *et seq.*, 1911.
Level crosswalks for streets. *Engineering News*, Sept. 26, 1912.
Mass and bulk in highway engineering. *Surveyor*, May 10, 1912.
Methods of testing road-making materials in European countries. *Engineering-Contracting*, Sept. 11, 1912.
Road construction and maintenance. American Society of Civil Engineers, *Proceedings*, March *et seq.*, 1912.
The road crust as an arch. *Surveyor*, July 26, 1912.
Road reform. *Surveyor*, Aug. 16, 1912.
Rubber and leather, as measuring the value of a road crust. *Surveyor*, Sept. 27, 1912.
Specifications for carriageways. *Surveyor*, Aug. 23, 1912.
Staffordshire roads. *Surveyor*, July 12, 1912.
A stitch in time. *Scientific American*, May 25, 1912.
The strengthening and improving of road crusts. *Surveyor*, Jan. 5, 1912.
Barlow (J. E.) Repair and renewal of pavements. *Municipal Journal and Engineer*, Jan. 18, 1212.
Baxter (W. H.) The work of road surveyors. *Surveyor*, July 5, 1912.
Beresford (Rex.) Building good roads by auto-power. *Scientific American*, March 16, 1912, *illus.*
Bolting (C. E.) Installing underground pipe connections before paving roads. *American City*, Feb., 1912.
***Goodrich (E. P.)** and **Holton (W. B., jr.)** Efficiency in highway administration, with special reference to pavements. American Academy of Political and Social Science, *Annals* XLI, 3, pp. 115–126. 1912.
Kneale (Robert D.) Highway maintenance. Association of Engineering Societies *Journal*, May, 1912.
Macdonald (Sir John H. A.) The modern road. [Summary.] *Surveyor*, Sept. 20; *Engineering*, Sept. 20, 1912.
—The road, past, present and future. *Surveyor*, Feb. 23, 1912.
Matthews (Ernest R.) Town planning from an engineering aspect. *Surveyor*, Oct. 11, 1912, *illus.*
Maybury (Henry Percy) Recent development in road traffic, road construction and maintenance. Institution of Civil Engineers, No. 3946. 1912.
***National Physical Laboratory.** Engineering Department, Road Board Laboratory. Tests and measurements undertaken, July, 1912. 8vo, pp. 19.
Page (Logan Waller) Good roads and how to build them. *Scientific American*, March 16, 1912.
Ravenel (Samuel W.) Ravenel's road primer. New York. 1912. 8vo, pp. 159.
Richardson (Clifford) Science in the service of highway construction. *Popular Science Monthly*, April, 1912.
Shaw (H. D.) Street grades and street drainage. *American City*, April, 1912.
Wood (Francis) Modern road construction. 1912. 8vo, pp. xii, 137, *illus.*

2. Highway Bridges.

Osborn Engineering Co. General specifications for highway bridge superstructures.
Thacher (E.) General specifications for highway bridges.

Gautier (Hubert) Traité des ponts, etc. Paris. 1716. 8vo. 785.e.17.(2)
—(New ed.) 1728. 2 parts. 1043.k.5. "Augmentée d'une dissertation sur les culées, pilles, voussoirs et poussées des ponts."
—(3rd ed.) 1755. 56.b.13.
—Dissertation sur l'épaisseur des culées des ponts . . . sur la largeur des piles, sur la portée des voussoirs, etc. Paris. 1717. 8vo. 1028.i.33.(3).
—(Reprinted) in 1728 edition of "Traité des ponts."
Bridges (James) Four designs for rebuilding Bristol Bridge. As also a short description of the method and size of the materials to be used in the course of the work. Bristol. 1760. 8vo. 101.k.71.
—Reasons for building a bridge of three arches [at Bristol] on the old foundations; with objections to the single arch plan, of 116 feet chord and 32 feet high. Bristol. 1762. 8vo. 101.k.23.
Gauthey (Émiland Marie) Traité de la construction des ponts . . . Paris. 1809–10. 4to. 3 vols. 59.c.8–10.
—(Another ed.) Liége. 1843. 1263.f.
Smeaton (John) Reports made on various occasions. 1812–14. 4to. 4 vols. 431.d.13–16.
Vol. I, p. 99—Bristol Bridge; pp. 174–191—Perth Bridge; 306–309—Stonehouse Creek Bridge; 333–337—Glasgow Bridge.
Vol. II, pp. 1–30—London Bridge; 185–188—Hewick Bridge.
Vol. III, pp. 51–53—Aberdeen Bridge (Bridge of Dee) and Mills; 218–227—Edinburgh Bridge; 235–251—Coldstream Bridge; 252–266—Newcastle Bridge; 267–344—Hexham Bridge; 345–348—Berwick Bridge; 349–354—Banff Bridge; pp. 355–356—Dumballod Bridge; 357–358—Braan Bridge; 359—Altgran Bridge; pp. 360–361—Bridges at Bewlie (Dumballoch), Conon (Boat of Braan), and Altgran; 370—Sutton Bridge; 371–77—Walton Bridge; 378–382—Harraton Bridge; 383–384—Bridge at Carlton Ferry; 385–386, Montrose Bridge.
—(2nd ed.) 1837.
Buck (George Watson) A practical and theoretical essay on oblique bridges. 1839. 4to. 786.l.13.
—(2nd ed.) 1857. With the addition of descriptions to diagrams for facilitating the construction of oblique bridges, by W. H. Barlowe. 8vo. 786.l.42.
—(3rd ed.) 1880. Revised by J. H. W. Buck. 8vo, pp. v, 76. 8768.e.7.
Cresy (Edward) Practical treatise on bridge-building, and on the equilibrium of vaults and arches, with the professional life and extracts from the works of Rennie. 1839. 8vo, and fol. atlas. 558.*h.19.
Polonceau (Antoine Rémi) Notice sur le nouveau système des ponts en fonte, suivi dans la construction du Pont de Carrousel: avec planches. Paris. 1839. 4to and obl. fol. 554.e.25, 26.
Hann (James) and **Hosking (William)** Bridges: theory, practice, and architecture. 1839–42. 8vo. 4 vols.
—(Another ed.), by J. Weale. 1843. 554.d.34.
***Gilbert (Linney** (*ed.*) Beauties and wonders of nature and science. 1840. 8vo, pp. 280.
pp. 185–186, Bridges.
***Rider (Nathaniel)** Description of the improved iron truss bridge invented by Nathaniel Rider. New York. 1848. 8vo, pp. 12. Pam. 79.
Hughes (John) On the pneumatic method adopted in constructing the foundations of the new bridge across the Medway at Rochester. 1859. 4to. 14001.b.8.

Thomason Civil Engineering College. Bridges (Roorkee Treatise on Civil Engineering, Vol. II, Section VII). Roorkee. 1867. 8vo.
—(2nd ed.) 1870.
—(3rd ed.) 1897.
—(4th ed.) by J. Clibborn. 1901.
Boller (A. B.) Practical treatise on the construction of iron highway bridges . . . New York. 1876. 8vo, *illus.* 8767.i.7.
—(2nd ed.) 1885.
Waddell (H.) Specifications for iron highway bridges. *American Engineer*, Aug. 8, 15, 1884.
Manners (C. R.) Short history of bridge building. *Engineering*, Jan. 1 *et seq.*, 1891.
The Stearns Truss for highway bridges. *Engineering News*, July 2, 1892.
Von Emperger (F.) Highway bridges of concrete. American Society of Civil Engineers, *Transactions*, April, 1894.
Stratham (H. H.) Design of stone bridges. *Engineering Record*, May 18, 1895.
Wentworth (C. C.) Country road bridges. Association of Engineering Societies, *Journal*, March, 1895.
Gayler (Carl) Highway bridges. Association of Engineering Societies, *Journal*, June, 1896.
Highway bridges. *Engineering Record*, Oct. 15, 1898.
Buel (Albert W.) Highway bridge building. *Engineering Record*, Dec. 24, 1898.
Bridge construction in Cumberland: the Sickergill Bridge. *Surveyor*, Jan. 26, 1900, *illus.*
Economy in bridge work. *Engineering*, Aug. 3, 1900.
Luten (Daniel B.) Highway bridges of concrete. *Municipal Engineering*, Dec., 1900.
Tyrell (H. G.) Comparative estimates of the cost of combination and all-steel highway bridges. *Engineering News*, Aug. 23, 1900.
Highway bridge design and construction. *Engineering Record*, Sept. 7, 1901.
Cooper (T.) General specifications for foundations and substructures of highway and electric railway bridges. 1901.
Hummel (Prof.) The general principles of bridge designs. *Surveyor*, Aug. 30, 1901, *illus.*
Canady (C. M.) Highway bridges. Engineers' Society of Western Pennsylvania, *Proceedings*, June, 1904.
Fowler (C. E.) Ordinary foundations [for highway bridges]. 1904.
Wing (C. B.) Comparative economy of various types of highway bridges. Association of Engineering Societies, *Journal*, Sept., 1904.
Burr (W. H.) and **Falk (M. S.)** The design and construction of metallic bridges. 1905. 8vo. 2246.d.4.
Buel (Albert W.) General specifications for steel railroad bridges and structures, with a section making them applicable to highway bridges and buildings. 1906.
Economical methods of highway bridge construction. *Engineering Record*, Aug. 24, 1907, *illus.*
Humphreys (H. Howard) Some points of the road-bridge problem. *Surveyor*, Apr. 12, 1907, *diagrams.*
Ketchum (Milo S.) Design of highway bridges and calculation of stresses in bridge trusses. New York. 1908. 8vo, pp. xxi, 554, *illus.* 08767.d.15.

Watson (W. J.) General specifications for concrete bridges. 1908.
Fidler (T. C.) Practical treatise on bridge construction. 1909. 8vo. 2246.c.8.
Everest (J. H.) Stone highway bridges. *Surveyor*, Oct. 7, 1910.
Carver (N. B.) The necessity of steel highway bridge inspection. *Canadian Engineer*, Aug. 3, 1911.
Smith (Albert) Relation of bridge specifications to highway improvement. *Engineering Record*, Jan. 21, 1911.
***U.S.A.** *Office of Public Roads.* Bulletin 39. Highway bridges and culverts; by Charles H. Hoyt and William H. Burr. Washington 1911. 8vo, pp. 21, 14 *plates.*
Highway bridges and culverts. *American City*, May; *Surveyor*, Sept. 20, 1912, *illus.*
Green (P. E.) Rapid construction of a small concrete bridge. *Engineering News*, May 16, 1912, *illus.*
Stone (R. Norton) Bridge building on Sedgemoor. *Surveyor*, June 14, 1912.

3. Dust Problem.

(a) *Generally.*

The war against dust; dustproof roads. *Surveyor*, Apr. 24, 1903.
The dust nuisance: a Wimbledon report. *Surveyor*, Sept. 2, 1904.
Dust-laying trials at Surbiton. *Surveyor*, July 15, 1904.
Motorists and the dust problem. *Surveyor*, Dec. 9, 1904.
Forestier (G.) Moyens de combattre ou d'empêcher la poussière. Société des Ingénieurs Civils de la France, *Mémoires*, Dec., 1904.
*The dust problem. *Municipal Journal*, July 14, 1905.
Cooper (W. R.) Dust prevention on highways. *Engineering Magazine*, Nov., 1905.
Rathbone (A. Lyle) The dust problem. *Surveyor*, May 12, 1905.
*Dust nuisance: attitude of the L.G.B. *Municipal Journal*, May 18, 1906.
Dust prevention. *Surveyor*, May 11, 18, 25; June 22, Aug. 10, 1906.
Dust prevention experiments. *Surveyor*, Feb. 23, 1906.
Dust prevention: experiments in Surrey. *Surveyor*, Aug. 17, 1906.
Dust prevention in England. *Harper's Weekly*, Aug. 11, 1906.
Dust prevention: Penrith surveyor's experiments. *Surveyor*, Nov. 23, 1906.
*The dust laying problem: tests by county surveyors. *Municipal Journal*, Apr. 20, 1906.
Dustless roads (correspondence), *Surveyor*, Oct. 26, Nov. 2, 1906.
Dustless roads for motor traffic. *Scientific American, Supplement*, Nov. 3, 1906.
Experiments in dust prevention (Surrey); County Surveyor's report. *Surveyor*, Aug. 17, 1906.
Improving roads by oiling and by calcium chloride treatment *Scientific American Supplement*, Oct. 6, 1906.
*Road reform: the association of the "anti-dusters." *Municipal Journal*, Sept. 7, 1906.
Bell (George Joseph) The dust nuisance. *Surveyor*, May 11, 1906.
Cass (R. W.) Dust prevention experiments at Farnham. *Surveyor*, Apr. 13–20, 1906.

Cotterell (A. P. I.) Macadamised roads and dust. Royal Sanitary Institute Congress Report. Summarised in *Surveyor*, July 20, 1906.

***Keene (F. B.)** Dusty roads. *U.S.A. Monthly Consular and Trade Report*, April, 1906, pp. 103–104.

Comparative reports of general practice, No. 68. Tarmac, tarred macadam and palliatives. *Surveyor*, Apr. 19, 26; May 3, 10, 1907.

Cost of laying dust. *Scientific American*, March 2, 1907.

Dust prevention: Twickenham Surveyor's experiments. *Surveyor*, July 19, 1907.

Aitken (T.) The maintenance of roads, with special reference to the introduction of tarred metal and the reduction of dust: *with discussion*. Association of Municipal and County Engineers, Proceedings, Vol. 34, pp. 246–256. 1907.

Cushman (A. S.) Fighting dusty roads. *Country Life*, Aug., 1907.

Holt-Lomax (R.) Dust-doctoring. *Harper's Weekly*, Nov. 2, 1907.

Howard (J. W.) Methods and cost of reducing dust and hardening roads by surface applications. *Engineering-Contracting*, April 3, 1907.

—Reducing dust and hardening roads by surface applications. *Surveyor*, Sept. 6, 1907.

Leeds (F. H.) The suppression of road dust. *Surveyor*, July 12, 1907.

***Page (L. W.)** Dust preventives. U.S. Department of Agriculture, Year Book, pp. 259–66. 1907.

***Simmons (Thomas B.)** Roads and dust. *Municipal Journal*, Aug. 2, 1907.

***Vaughan (Charles F.)** Dustless highways. *Municipal Journal*, June 21, 1907.

*Dustless roads. *Municipal Journal*, March 6, 1908.

The selection of dust preventives. *Engineering Record*, Oct. 3, 1908.

Andes (Louis Edgar) Die Beseitigung des Staubes auf Strassen und Wegen . . Wien and Leipzig. 1908. 8vo, pp. viii, 318, *illus*. *Patent Office Library*.

Brown (Reginald) Surface treatment of roads with reference to dust laying. Royal Sanitary Institute, *Journal*, Oct., 1908.

Fichtner. Die Staubbekämpfung auf öffentlichen Strassen. *Zeitschrift des Mitteleuropäischen Motorwagen-Vereines*, Dec. 31, 1908.

Moore (R. R.) Dustless roadways. *World To-Day*, April, 1908.

***U.S.A.:** *Office of Public Roads*. Bulletin 34. Dust prevention: by Prevost Hubbard. Washington. 1908. 8vo, pp. 64, *illus*.

*Dust problem statistics. *Municipal Journal*, May 7, 1909.

Biggs (C. H. W.) The mechanics of dust. Society of Engineers, *Proceedings*, Dec. 6, 1909.

***Findlay (J. R.)** Dust on roads. *Municipal Journal*, Sept. 17, 1909.

Fulweiler (W. H.) Dust abatement by surface application. *Municipal Engineering*, Oct, 1909.

Hirst (A. R.) The use of tar, oils and emulsions on macadam and earth roads. *Engineering-Contracting*, April 14, 1909.

Hubbard (P.) Dust preventives; the temporary tar and oil binders, emulsions and similar preparations. *Scientific American. Supplement*, May 15, 1909.

***Roads Improvement Association.** Dust problem statistics: return of methods adopted and materials used by the local authorities of Great Britain to render the roads dustless during 1907–1908. By Rees Jeffreys. 1909. 8vo, pp. viii, 182.

Dust prevention on public roads. *Scientific American*, Aug. 27, 1910.

Dustless roads: report of the Royal Automobile Club. *Surveyor*, March 18, 1910.

Experiments with dust preventives. Royal Automobile Club, *Journal*, Sept. 8, 1910.
Surface treatment for dust laying. *Surveyor*, Nov. 25, 1910.
Blanchard (Arthur H.) Dustless roads in Europe. *Engineering Record*, Oct. 1, 1910.
***Cardiff Borough Council.** Report on dust prevention, and on the comparative efficiency of horse and motor water-carts. Minutes, May, 1910, pp. 90–91.
Hartfree (G. B.) Highway dust reduction. *Builder*, Oct. 22, 1910.
Hubbard (Prevost) Dust preventives and road binders. New York. 1910. pp. viii, 416, *illus.* 08766.d.35.
Krarup (Marius C.) Best means of dustproofing the highway. *Automobile*, April 28 *et seq.*, 1910.
Ross (Charles W.) Modern surface treatments of roads. *Engineering Record*, Oct. 15, 1910.
Hartfree (G. B.) Dust reduction trials: *with discussion*. Association of Municipal and County Engineers, Proceedings, Vol. 37, pp. 287–299, *illus.* 1911.
McLean (W. A.) Surface treatment for dust prevention and road preservation. *Canadian Engineer*, Nov. 30, 1911; *Engineering Magazine*, Feb., 1912.
Prevention of dust on city and suburban roads. *American City*, March, 1912.
Guglielminetti (Dr.) Proposals for dust suppression and road improvement. *Surveyor*, Feb. 23, 1912.
Prouty (W. F.) Dustless roads and bituminous binders. *Cassier's Magazine*, Jan., 1912.

(b) *Oiling.*

Oiled roads. *Surveyor*, Dec. 21, 1900.
***Brundage (Ben L.)** A report on oiled roads. *California Municipalities*, May, 1900.
"Laying" dust with oil. *Municipal Journal*, Sept. 12, 1902.
The oiled road experiment (at Farnborough). *Surveyor*, Oct. 17, 1902.
The oiling of roads. *Surveyor*, Oct. 10, 1902.
Petroleum treatment of roads: a promising experiment (between Farnborough and Aldershot). *Municipal Journal*, Oct. 3, 10; *Surveyor*, Oct. 3, 1902.
***Abbott (J. W.)** Use of mineral oil in road improvement. U.S. Department of Agriculture, Year Book, pp. 439–54. 1902.
The dust nuisance: an oiling experiment in Bombay. *Municipal Journal*, Aug. 7, 1903.
The oiled road at Farnborough. *Surveyor*, March 6, 1903.
Oiled roads. *Surveyor*, Oct. 16, 1903.
Oiled roads. *Surveyor*, April 29, 1904.
The use of Pyne Oiline on roads: recent observations at Epsom. *Surveyor*, May 27, 1904.
Atkinson (A. S.) Making oiled roads. *Scientific American Supplement*, April 15, 1905.
Rathbone (A. Lyle) Dust-laying experiments at Liverpool. *Autocar*, April 29, 1905.
White (Theodore F.) The use of oil on macadam pavements. *Surveyor*, June 1, 1906.
Petrolithic pavement: a new method of oiled road construction. *Engineering-Contracting*, April 17, 1907, *illus.*

Black (J. C.) Petrolithic pavement: an improved method of oiled road construction. *California Journal of Technology*, Oct., 1908.
Has experience demonstrated that the oiling of roads is the most satisfactory or economical method of preventing dust and preserving the road surface? American Society of Civil Engineers, *Proceedings*, Sept., 1909.
Hubbard (Prevost) Oils as dust preventives: how they are applied. *Scientific American*, Jan. 9, 1909.
Reimer (Frederic A.) Three years of experience with oiling roads. *Municipal Engineering*, Dec., 1909.
Wardroper (D. Lee) The petrolithic pavement. *Engineering News*, July 29, 1909.
Ballot (*Herr.*) The use of oil on roads. *Builder*, March 12, 1910.
Bartlett (Charles H.) Asphaltic oil treatment of macadam roads. Association of Engineering Societies, *Journal*, Feb., 1910.
A car for oiling streets. *Scientific American*, Nov. 11, 1911.
Gillette (W. A.) Methods and costs of repairing petrolithic macadam, oil macadam and surface oiled roads. *Engineering-Contracting*, Aug. 2, 1911, *illus.*

(c) *Tarring.*

Warren (Fred J.) Coal tar for paving uses. *Municipal Engineering*, April, 1901.
Tarring the highways (in Epsom Rural District) *Surveyor*, Oct. 28, 1904.
The dust problem. *Surveyor*, Sept. 22, 1905, *illus.*
Tarring roads to prevent dust and to aid in their preservation. *Scientific American Supplement*, Jan. 7, 1905.
Ware (T. E.) The effect of tarring roads (in Epsom Rural District) *Surveyor*, March 3, 1905.
Dust laying: forthcoming experiments on the Maidstone road. *Surveyor*, Feb. 16, 1906.
Dust prevention: a Mid-Lothian report: tar-painting in Beckenham. *Surveyor*, Oct. 19, 1906.
*Dust prevention and road maintenance: the success of "Taafalt." *Municipal Journal*, Oct. 12, 1906.
Dust prevention: experiments at Dunstable. *Surveyor*, July 20, 1906.
Dust prevention: successful use of oil tar. *Surveyor*, April 27, 1906.
Dust prevention: waterproof roads as a solution. *Surveyor*, Aug. 24, 1906.
*Experiments in Kent. *Municipal Journal*, Aug. 24, 1906.
*Oil tar on roads. *Municipal Journal*, Sept. 21, 1906.
Oil-gas tar for dust prevention. *Surveyor*, June 29, July 20, 1906.
Tar-painting: disappointing results in Buckinghamshire. *Surveyor*, Oct. 26, 1906.
Tarring of roads. Grays Suveyor's report. *Surveyor*, Feb. 2, 1906.
*Tarring the roads. *Municipal Journal*, Oct. 12, 1906.
Brown (Reginald) Solving the dust problem: Further details as to oil-tar. *Surveyor*, Aug. 3, 1906.
Haig (H. de H.) Experiments on road surfaces. *Royal Engineers' Journal*, Jan.; summarised in *Surveyor*, Jan. 12, 1906.
Owen (James) The use of tar on roads. *Municipal Engineering*, Nov.; *Scientific American Supplement*, Dec.; *Surveyor*, Dec. 28, 1906.
*Dust prevention: a competition organised by the Roads Improvement Association. *Municipal Journal*, May 31, 1907.
The dust prevention competition. *Autocar*, June 1, 1907, *illus.*

Dust prevention: experiments with tar. *Surveyor*, Nov. 22, 1907, Suppl.
Dust prevention in America: the use of Tarvia. *Surveyor*, July 12, 1907.
Dust prevention: judges' report on the Roads Improvement Association's tar trials. *Surveyor*, Nov. 1, 1907.
Dust prevention: tar-spraying at Maidstone. *Surveyor*, April 19, 1907, *illus.*
*Dust prevention tests. *Municipal Journal*, Aug. 23, 1907, *illus.*
*The dust problem [tar-spraying competition]. *Municipal Journal*, Jan. 11, 1907.
The dustless road question. *Surveyor*, Aug. 23, 1907.
Improved road surfaces: the "Tarmaciser" apparatus. *Surveyor*, Jan. 25, 1907.
[Letter on the] tar-treating competition. *Surveyor*, May 17, 1907.
Re-surfacing roads: a new binder. *Surveyor*, May 31, 1907.
Road-dust prevention: tests of tar spreaders and tar preparations. *Surveyor*, Suppl. May 24, 31, 1907.
*Successful road treatment. *Municipal Journal*, Oct. 4, 1907.
*Tar-spraying in Sheffield and in Leeds. *Municipal Journal*, Sept. 20th, 1907.
Tar-spreading tests. *Engineer*, May 4, 1907, *illus.*
*Tar treatment of roads: a special road at Sutton Coldfield. *Municipal Journal*, Sept. 6, 1907.
Aitken (Thomas) The application of tar to macadamised roads. *Engineering News*, Aug. 22, 1907.
Cass (R. W.) The use of tar on roads. *Surveyor*, June 21, 1907.
Dryland (A.) [Letter on] competition for tar-treating roads. *Surveyor*, Feb. 15, 1907.
*—Tar on roads: paper read before the Conference on Highways. *Municipal Journal*, July 12, 19, 1907.
Kelly (T. D.) The use of tar on roads. *Surveyor*, June 7, 1907.
Pearce (F. W.) Notes on the tar-spraying trials. Association of Municipal and County Engineers, Proceedings, Vol. 33, pp. 298, 299; *Surveyor*, July 5, 1907.
***Roads Improvement Association.** The dust problem: official programme of dust prevention experiments in connection with the competitions for the best tar-spreading machine and the best preparation of tar for road purposes. 1907. 4to, pp. 25, *illus.*
Simmons (Thomas B.) Road construction to minimise the dust nuisance. *Surveyor*, Sept. 6, 1907.
Spraying roads with tar. *Scientific American*, May 9, 1907.
*Tar treatment of roads. *Municipal Journal*, July 3, 1908.
Beadle (Clayton) and **Stevens (Henry P.)** Examination of tars for use on roads. *Surveyor*, Dec. 4, 1908.
Caufourier (P.) Emploi du goudron sur les chaussées empierrées. *Génie Civil*, Feb. 15, 1908.
English methods of tar-spraying for dust prevention, and some general costs of the work. *Engineering-Contracting*, Sept. 29, 1909.
Memorandum on application of bituminous compounds to roads. 1909. Fol. 1801.d.2 (68).
*Tar-painting macadam roads. *Municipal Journal*, Aug. 6, 1909.
Gavett (W.) Bituminous dust preventives. *Cornell Civil Engineer*, Dec., 1909.
Hubbard (Prevost) The effect of free carbon in tars from the standpoint of road treatment. *Engineering-Contracting*, Sept. 29, 1909.
—The tarring of roads. *Scientific American Supplement*, Jan. 2, 1909, *illus.*

Price (C. P.) Tar for roads. *American Gas Light Journal*, May 24, 1909, *illus.*

Robinson (John) Tar and its uses as a dust palliative. *Surveyor*, June 4, 1909.

Skinner (Henry J.) Tar as applied to the surface treatment of roads. *Engineering-Contracting*, Oct. 20, 1909.

—Preservation of roads: tar as applied to surface treatment. *Scientific American Supplement*, Nov. 20, 1909.

The selection of tar for roads. *Builder*, Aug. 20, 1910.

The tarred road. *Lancet*, Nov. 19, 1910.

Aitken (Thomas) A few remarks in regard to surface-spraying of roads with tar and making *in situ* tar macadam. *Surveyor*, May 20, 1910.

Butterfield (W. J. Atkinson) The use of tar on roads. *Surveyor*, April 15, 1910.

Honore (F.) The effect of tarred roads upon trees and shrubs. *Scientific American*, Aug. 27, 1910.

***Kingston-upon-Hull.** Report of Sanitary Committee upon dust prevention by the use of gas oil-tar, refined coal tar, and paving tar and pitch. Minutes, Vol. V, pp. 208–210. 1910.

Moreau (A.) Appareils à goudronner. *Bulletin de la Société d'Encouragement*, Jan., 1910, *illus.*

—Le système de goudronnage des routes par M. J. Vinsonneau. *Bulletin de la Société d'Encouragement*, Jan., 1910, *illus.*

Peirce (George J.) Why the tarring of roads is injurious to vegetation. *Scientific American*, Nov. 19, 1910.

Race (Joseph) Free carbon in tar. *Surveyor*, Nov. 25, 1910.

Sharples (P. P.) Tar treatment of roads. *Progressive Age*, April 1, 1910.

Skinner (Hervey J.) Tar as applied to the surface treatment of roads. *American Gas Light Journal*, Feb. 19; *Progressive Age*, April 1, 1910.

***U.S.A.** *Dept. of Agriculture.* Year book, 1910. Washington. 8vo. pp. 297–306—Bituminous dust preventives and road binders, by Prevost Hubbard.

Whittaker (A. D.) The use of tar on roads. *American Gas Light Journal*, Aug. 29, 1910, *illus.*

Wynne-Roberts (R. O.) Tar for road works. *Surveyor*, July 1, 1910.

Objections to the use of tar on roads. *Scientific American*, Oct. 7, 1911.

The Road Board's "General Directions and Specifications relating to the tar treatment of roads." *Surveyor*, April 28, 1911.

Breitenfelder (K.) Ueber einige neuere Erfahrungen bei Oberflächenteerungen. *Oesterreichische Wochenschrift für die Oeffentliche Baudienst*, Oct. 5, 1911, *illus.*

***County Councils Association.** Tar-spraying on main roads. *Official Circular*, Feb., March, 1911.

Guglielminetti (Dr.) Recent views on road tarring. *Scientific American*, Dec. 9, 1911.

—Surface tarring of highways. *Surveyor*, July 28, 1911.

Mirande (Marcel) L'action du goudron sur les plantes vertes. *Revue Générale des Sciences*, March 15, 1911.

—Tarred roads and vegetation. *Surveyor*, Jan. 6, 1911.

Oxtoby (William) Tarring and gritting of road surfaces. *Surveyor*, April 14, 1911.

Tipper (Harry) Maintenance of existing roads by hot application of bituminous binder. *Engineering Record*, Nov. 18, 1911.

Wolff (Georg.) Die Entstäubung der Landstrasse. *Zeitschrift des mitteleuropäischen Motorwagen-Vereines*, Aug. 31, 1911.

Tarred roads and the weather. *Surveyor*, Sept. 13, 1912.

***U.S.A.:** *Office of Public Roads.* Circular 97; Coke-oven tars of the United States, by Prevost Hubbard. Washington. 1912. 8vo, pp. 11.

(d) *Other Surface Applications.*

The municipal utilisation of sea-water. *Surveyor*, Jan. 31, 1896.

Grant (Joseph D.) Salt water for sprinkling streets and flushing sewers. *Merchants' Association Review*, July, 1898.

*"Westrumite" in London: trials of a new disinfectant and dust layer. *Municipal Journal*, Sept. 25, 1903.

The dust nuisance: notes on the use of Westrumite. *Surveyor*, May 19, 1905.

*Laying the dust [with Westrumite] *Municipal Journal*, June 23, 1905.

Dust prevention: an experiment at Handsworth. *Surveyor*, Sept. 28, 1906.

The dust problem: some results of trials with Akonia. *Surveyor*, Jan. 19, 1906.

The chemicalised road: on the use of calcium chloride. *Surveyor*, May 31, 1907.

***Brunner, Mond & Co.** The road dust problem solved by the use of calcium chloride. Liverpool. 1907. 12mo, pp. 36.

*Dust-laying: tests with calcium chloride. *Municipal Journal*, June 18, 1909.

Dust prevention. Report of official tests carried out by the Roads Improvement Association with calcium chloride. *Automotor Journal*, Sept. 25, 1909.

*Dust prevention: calcium chloride tests. *Municipal Journal*, Sept. 24, 1909.

4. Street Cleaning.

Winterbottom (John) Memoir on the history and theory of a machine for clearing roads from mud. 1805. 8vo.

Report on the Patent Road Cleansing Machine (of Sir Joseph Whitworth). 1843. 4to. 717.k.32.

Whitworth (Sir Joseph) On the advantages and economy of maintaining a high degree of cleanliness in roads and streets; with an account of the construction and operation of the street-sweeping machine. Manchester. 1847. 8vo, pp. 39. C.T.326.(12).

Street cleaning in Glasgow. *Engineering News*, Aug. 30, 1884.

Boulnois (H. Percy) Dirty dustbins and sloppy streets. A treatise on the scavenging and cleansing of cities and towns. 1881. 8vo, pp. viii, 101. 7945.b.7.

Street cleaning and disposal of refuse. *Engineering and Building Record*, Nov. 29, 1890.

Baumeister (Reinhold) Städtisches Strassenwesen und Städtereinigung. Berlin. 1890. pp. iii, 356, *illus.*

—The cleaning and sewerage of cities. Adapted from the German by J. M. Goodell. New York, 1891. pp. 291.

Clarke (E.) Street cleaning. *Popular Science Monthly*, Vol. 38. 1891.

Ferris (G. T.) Cleansing of great cities. *Harper's Weekly*, Vol. 35. 1891.

The cost of street cleaning, and methods of paying for municipal improvements, street cleaning and sprinkling. *Engineering News*, Sept. 29, 1892.

Bennett (W. B. G.) Street gullies and road cleansing. *Surveyor*, Sept. 22, 1892, *illus.*

Street cleaning in Europe. *Leslie's Weekly*, Vol. 80. 1895.

Asphalt and wood paving in relation to street cleaning. *Sanitary Record*, July 16, 1897.

Howard (J. W.) Street cleaning. *Municipal Engineering*, Nov., 1897.

Maxwell (William H.) Street watering. *Sanitary Record*, Aug. 27, Sept. 10, 1897.

Waring (George E.) Paving and street cleaning. *Engineering Magazine*, Jan., 1897.

—The relations of street cleaning to good paving. *Engineering Magazine*, Feb., 1897.

—Street cleaning and the disposal of a city's wastes: methods and results, and the effect upon public health, public morals and municipal prosperity. New York. 1897. 8vo, pp. 230, *illus.* 8777.c.3.

—Street cleaning. *City Government*, Oct., 1897.

Weaver (William) Street scavenging. *London*, July 29, 1897.

Internationales Kongress für Hygiene und Demographie in Madrid. Strassenhygiene in europäischen Städte: Sammelbericht. . 1898. 8vo, pp. 83.

***Liverpool**: *City Council.* Brief remarks upon street watering, effect upon roads and upon public health. Proceedings, pp. 1148–1150. 1898.

Waring (George E., jun.) Observations on street cleaning methods in European cities. *Municipal Affairs*, June, 1898, *supplement.*

A new street cleaning and disinfecting method. *Public Improvements*, July, 1899.

Lovegrove (James) Street cleaning. *Sanitary Record*, June 2, 1899.

*Mechanical cleansing of cities. *Municipal Journal*, Sept. 28, 1900.

Municipal cleansing in Great Britain. *Engineering News*, Apr. 26, 1900.

***Darley (George)** Street cleaning in Leeds. *Municipal Journal and London*, Dec., 1900.

Jackson (J.) Street cleaning and watering. Association of Cleansing Superintendents of Great Britain, Proceedings 1899, pp. 31–40. Rochdale.. 1900. 8vo, pp. 63.

Smith (E. Shapnell) The application of mechanical power to street cleansing. Association of Cleansing Superintendents of Great Britain, Proceedings 1899, pp. 56-63. Rochdale. 1900. 8vo, pp. 63.

Stutler (Warner) The cost of street cleaning. *Public Improvement*, March 1, 1900.

Innes (H. C.) Methods of cleaning (asphalt) pavements. *Municipal Engineering*, Apr., 1901.

***McColl (D.)** A century of street scavenging [in Glasgow]. *Municipal Journal*, Jan. 4, 1901.

Weyl (T.) Fortschritte der Strassenhygiene. Jena. 1901. 8vo. 8777.dd.

Pavements injured by water. *Surveyor*. Dec. 19, 1902.

*Sanitation of road traffic (summary of paper by E. George Mawbey). *Municipal Journal*, Sept. 19, 1902.

Howard (J. W.) Pavements injured by water. *Municipal Journal and Engineer*, Dec., 1902.

U.K. *Local Govt. Board for Ireland.* Cleansing of footways and pavements. Dublin. 1903. pp. 8. 6005.e.37 (1).

Comparative reports of general practice: road sweeping machines. *Surveyor*, Mar. 11, 1904.

Road sanitation. *Surveyor*, Feb. 12, 19, 1904.

*Road scavenging. (Whitome's Scavenger). *Municipal Journal*, July 8, 1904, *illus.*

***Glasgow**: *City Council.* Reports on hose washing of streets in various large towns. Police Dept., Minutes, pp. 61–62. 1904.

***Leicester**: *Borough Council.* Account of Glasgow methods of street cleaning. Minutes, *Appx.* p. 12. 1904.

*—Association of Cleansing Superintendents, Proceedings; account of Aberdeen methods of street cleansing. Minutes, pp. 17-20. 1904.

Electric street sprinklers. *Scientific American*, April 22, 1905.
Street-sprinkling curb. *Scientific American*, Nov. 4, 1905.
Automatic street sweeper and sprinkler. *Scientific American*, Aug. 25, 1906.
Boulnois (H. Percy) Road making in relation to street cleaning. *Surveyor*, July 10, 1908.
Soper (George Albert) Modern methods of street cleaning. 1909. 8vo, pp. 201.
***North (Sydney H.)** The cleansing of towns. *Local Government Review*, Feb., 1910.
Yabbicom (F. H. Street cleaning and watering. *Surveyor*, Aug. 5, 1910.
Perkins (F. C.) Street sweeping and sprinkling with gasoline motor-driven machines. *Scientific American*, May 27, 1911.
***Glasgow**: *City Council*. Report by the deputation to Paris, Antwerp, Leeds, and London, to inspect the mechanically driven street cleaning machines Minutes of Corporation, pp. 864–865. 1912.

5. Materials and Kinds of Pavement.

(a) *Asphalt.*

Greene (F. V.) Asphalt and its uses. American Institute of Mining Engineers.
Simms (Frederick Walter) Practical observations on the asphaltic mastic, or cement of Seyssel. 1838. 8vo. 7954.d.17.
Beckwith (Arthur) Report on asphalt and bitumen, as applied to the construction of streets and sidewalks in Paris. 1868.
Ellice-Clark (E. B.) Asphalte, and its application to street paving. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. 6, pp. 40–57. 1880.
Schubarth (E. O.) Ueber Asphalt-Strassen. Berlin. 1881. 8vo, pp. 52, *map*. 7944.e.23.
Dietrich (E.) Die Asphalt-Strassen; Beschaffung der Rohmaterialien; Bau der Fahrdämme und Fusswege. . . Berlin. 1882. 4to, pp. IV, 207, *illus*. 8768.e.10.
Asphalt street pavements. *Franklin Institute Journal*, Sept., 1884.
Asphaltum pavements. *Engineering News*, Feb. 16, 1884.
Asphalt pavements. *Engineering News*, Feb. 28, 1885.
Knight (W. B.) Asphalt street pavements. *Scientific American Supplement*, Feb. 14, 1885.
Malo (Leon) On asphalte roadways. 1886. 8vo, pp. 66. 8767.cc.10.
Bacon (A. P.) California asphalt; God's natural paving material. 1891.
Douglass (David) Tar pavements and tar varnish. (abstract). *Engineering News*, Dec. 19, 1891.
New York: *Public Works Dept.* Report on street pavements, with special reference to asphalt pavements. 1892.
Blake (H. D.) Mineral rock asphalt. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 20, pp. 348–350. *Surveyor*, Aug. 2, 1894.
Peckham (S. F.) Asphalt pavements. *Paving and Municipal Engineering*, Oct., 1894.
Whinery (S.) Asphalt pavements. Association of Engineering Societies, *Journal*, Sept.. 1894.
Repairing asphalt pavements. *Engineering News*, April 4, 1895, *illus.*
Tests of asphalt. *Paving and Municipal Engineering*, Feb., 1895.
Peckham (S. F.) Asphalt pavements in Europe. *Paving and Municipal Engineering*, June, 1895.

Richardson (Clifford) California asphaltum. *Paving and Municipal Engineering*, IX, 1. 1895.
Guthrie (E. B.) Asphalt pavement and repairs. *City Government*, Vol. I. 1896.
—Repairs of asphalt pavements. *Municipal Engineering*, Nov., 1896,
Lewis (N. P.) The advantages of an asphalt testing laboratory. *City Government*, Vol. I. 1896.
Bienenfeld (Bernard) The origin and history of asphalt. *Municipal Engineering*, May, 1897.
Endeman (H.) Asphalt examination. *Municipal Engineering*, July; *American Gas Lighting Journal*, July 26, 1897.
Peckham (S. F.) Faulty specifications for asphalt. *City Government*. June, 1897.
—How to obtain a good asphalt street for the least money. *City Government*, Nov., 1897.
Tillson (George W.) Asphalt and asphalt pavements. American Society of Civil Engineers, *Proceedings*, April; *Engineering News*, Sept. 2, 1897.
—One year's work with a chemical laboratory for testing asphalts. *Municipal Engineering*, Nov., 1897.
Asphalt paving guarantees. *Engineering Record*, July 23, 1898.
The manufacture of asphalt pavements. *Engineering Record*, Nov. 19, 1898.
Municipal asphalt plants. *City Government*, Feb., 1898.
Delle pavimentazioni stradali sotto l'aspetto della viabilità, dell' igiene e dell' economia. Societa degli Ingegneri e degli Architetti Italiani, *Annali*. Sept.–Oct., 1898.
Dow (A. W.) The theory and practice of asphalt mixtures. *Municipal Engineering*, Dec.; American Society for Municipal Improvement, *Proceedings*, Part II. 1898.
Puffer (F. E.) Minor repairs to asphalt pavements. *Municipal Engineering*, Aug., 1898.
Asphalt pavement repairs. *Municipal Engineering*, July, 1899.
Broadhurst (W. H.) The physical properties of asphalt and asphaltic cements. *Municipal Engineering*, Nov., 1899.
Dow (A. W.) The relative viscosity of asphalts and allied bodies. *Municipal Engineering*, March, 1899.
Richardson (Clifford) Residuum as a flux for asphalt. *Municipal Engineering*, June, 1899.
Failures in asphalt pavements. *Engineering Record*, Jan. 6, 1900.
A sanitary block pavement. *Surveyor*, Nov. 23, 1900, *illus.*
Dow (A. W.) Failures in asphalt pavements. *Municipal Engineering*, Jan.; *Engineering News*, April 5; *Engineering Record*, Jan. 6. 1900.
Luten (Daniel B.) Action of water on asphalt pavements. *Engineering News*, Aug. 16, 1900.
Puffer (F. E.) Asphalt paving tests. *Municipal Engineering*, May, 1900.
Tillson (George W.) Construction of asphalt pavements. *City Government*, Sept.; *Municipal Engineering*, Sept.; *Engineering Record*, Sept. 1, 1900.
Bardol (F. V. E.) The cost of asphalt pavements. *Engineering Record*, Feb. 23, 1901.
Peckham (S. F.) Asphaltum for a modern street. *Popular Science Monthly*, Jan., 1901, *illus.*
Concerning Retene, Petrolene and Asphaltene. Franklin Institute, *Journal*, Jan., 1901.
The maintenance of asphalt streets. American Society of Civil Engineers, *Proceedings*, Oct. and Nov., 1902.

Peckham (S. F.) A modern street phalt-paved). *Popular Science Monthly*, July, 1902, *illus.*
Wollheim (A.) Asphalt-Strassen. Wien. 1902. 8vo, pp. 21. 8708.dd.19.(5).
Coal tar as a road material. *Automobile*, May 23, 1903, *illus.*
Dow (Allan Wade) Coal tar pavements. *Municipal Journal and Engineer*, March, 1903, *illus.*
—The testing of bitumen for paving purposes. *Engineering Record*, July 11, 1903.
Blake (F. O.) Effect of heat upon asphaltum in paving mixtures. *Municipal Engineering*, July, 1904.
New York. Report of Commissioners upon asphalt paving. 1904.
*Mineral rock asphalt. *Municipal Journal*, April 7th, 1905, *illus.*
Blake (H. D.) The manufacture and sanitary uses of natural mineral rock asphalt. *Surveyor*, Feb. 17. 1905.
Richardson (Clifford) The modern asphalt pavement. New York. 1905. pp. 579, *illus.* 08767.g.12.
—(2nd ed.), revised. 1908. pp. x, 629, *illus.*
Rosewater (Andrew) Asphalt paving construction. *Engineering Magzine*, Dec., 1905.
—Asphalt paving. *Municipal Engineering*, Oct., 1905.
—Factors in asphalt pavement construction, maintenance and cost. *Municipal Engineering*, Sept., 1905.
Wollheim (Albert) Asphalt roads: technical, hygienic and economic considerations. *Surveyor*, Jan. 27, 1905.
Innes (H. C.) Street asphalt pavements. *Municipal Engineering*, March, 1907.
Richardson (Clifford) Recent progress in asphalt paving industry. *Engineering-Contracting*, June 26; abstract in *Engineering Record*, June 1, 1907.
Whinery (S.) The maintenance of asphalt pavements. *Engineering News*, May 9th, 1907.
Boorman (T. H.) Asphalts: their sources and utilizations. New York. 1908. 8vo, pp. 216; 48 *plates.*
Kirschbaum (L.) The value of carbene requirements in asphalt specifications. *Municipal Engineering*, Dec., 1908.
The examination of bituminous materials for road construction. *Engineering Record*, July 10, 1909.
Portable machines for making asphaltic concrete paving. *Engineering News*, Oct. 21, 1909.
Testing bitumens for pavements. *Scientific American*, Nov. 6, 1909.
Kirschbaum (L.) Asphalt paving mixtures. *Municipal Engineering*, Oct., 1909.
Tipper (Henry) Observations of asphalt paving and some present needs. *Engineering-Contracting*, Nov. 17, 1909.
Van Trump (Isaac) Causes and prevention of defects in asphalt pavements. *Municipal Engineering*, May, 1909.
—The construction of an asphalt street. *Municipal Engineering*, April, 1909.
—Asphalt pavement specifications. *Municipal Journal and Engineer*, Nov. 2nd.
Specifications for sheet asphalt pavement. *Municipal Engineer*, April, 1910.
Purdue (E. M.) Specifications for asphalt pavements. *Municipal Engineering*, Dec., 1910.
Smith (F. P.) Proposed specifications for sheet-asphalt pavements. *Municipal Engineering*, Dec., 1910.

Darrow (M. S.) Asphalt pavements. *Cornell Civil Engineer*, Oct., 1911, *illus.*

Howard (James W.) Standard tests for asphaltic cements for street asphalt pavements. *Municipal Engineering*, Nov., 1911.

Sommer (Albert) Trinidad asphaltic petroleum and its use as road material. *Engineering Record*, July 1, 1911.

***U.S.A.** *Office of Public Roads.* Bulletin 38. Methods for the examination of bituminous road materials, by Prevost Hubbard and Charles S. Reeve. Washington. 1911. 8vo, pp. 45, *illus.*

*—Circular 93. Bitumens and their essential constituents for road construction and maintenance. Washington. 1911. 8vo, pp. 16.

Walker (Edward) Rock asphalts for street purposes. *Surveyor*, April 14, 1911.

The bitumen content of coarse bituminous aggregates. *Engineering-Contracting*, Sept. 4, 1912.

Norton (G. H.) Life and cost of asphalt pavements. *Engineering News*, Sept. 26, 1912.

Richardson (Clifford) Trinidad and Bermudez asphalts, and their use in highway construction. *Popular Science Monthly*, July, 1912, *illus.*

(b) *Brick.*

Malepeyre (F.) Nouveau manuel du briquetier, fabricant de carreaux. 1883. *Encyclopédie-Roret.* 18mo, 2 vols. 12207.m.19.

Gonvy. "Ceramite" as paving material. *Engineering News*, March 20, 1886.

Brick pavements. *Engineering*, April 29, 1887.

Sargent. Brick street pavements. Institution of Civil Engineers, *Transactions*, Vol. 91. 1888.

Brick pavements. *Engineering News*, Dec. 21, 1889.

The Hale system of brick paving. *Engineering News*, Aug. 3, 1889, *illus.*

Billingsly. Brick pavements. *Engineering News*, Feb. 2, 1889.

Ryan. Brick pavements. *Engineering News*, June 15, 29, 1889.

The Hale pavement. *Engineering and Mining Journal*, Jan. 25, 1890.

Chase (C. P.) Bricks and brick pavements. *Engineering News*, July 19, 26, 1890, *illus.*

Culley. Notes on fire-brick pavements. *Engineering News*, March 1, 1890, *illus.*

Potter. Tests of paving brick. *Engineering News*, June 21, 1890.

Table of paving brick tests. *Engineering Record*, May 2, 1891.

Baker (Ira Osborn) Durability of brick pavements. Indianapolis. 1891. 8vo, pp. 46. *Patent Office Library.*

Butts. Paving brick tests. *Engineering News*, April 11, 1891, *illus.*

Chase (C. P.) Brick pavement . with tables of experiments and tests . Indianapolis. 1891. 8vo, pp. 52. *Patent Office Library.*

Brick pavements. Association of Engineering Societies *Journal*, Aug., 1892.

Tests of vitrified paving brick. *Engineering News*, Jan. 9; *Engineering Record*, Feb. 20, 1892.

Burke (Milo D.) Brick for street pavements. An account of tests made with bricks and paving blocks Cincinnati. 1892. 8vo, pp. 108. 8768.cc.39.

—(New ed.) 1894. With a paper on country roads, prepared for the Engineers' Club of Cincinnati. *Patent Office Library.*

Calkins. Brick pavements and paving brick manufacture. American Society of Civil Engineers. *Transactions*, Vol. 26, *illus.* 1892.

Brick pavements. *Engineering Record*, Dec. 30, 1893.
Paving brick tests. Association of Civil Engineers of Cornell University. *Transactions*. 1893.
Mead (D. W.) Manufacture and use of paving brick. American Society of Civil Engineers. *Transactions*, Vol. 39, pp. 653–680; abstract in *Engineering News*, Aug. 31, 1893.
Steyham (William) Brick street pavements. *Paving and Municipal Engineering*, Feb., 1893.
Paving and building brick. *Engineering News*, Dec. 13, 1894.
Ravenscroft (W. S.) Paving brick. *Paving and Municipal Engineering*, Dec., 1894.
Paving brick tests. *Clay Worker*, XXIII, 6; *Paving and Municipal Engineering*, March, 1895.
Johnson (J. B.) Standard tests of paving brick. *Engineering News*, April 18, 1895.
Judson (W. P.) Vitrified brick pavements. *Paving and Municipal Engineering*, VIII, 6, 1895.
Mead (Daniel W.) Paving brick: its material, manufacture and use. *Clay Worker*, Jan., Feb., 1895.
Nicholson (M.) Brick paving from start to finish. *Paving and Municipal Engineering*, Dec., 1895.
Orton (Edward, jr.) Testing paving brick. *Clay Worker*, XXIV, 6. 1895.
Wallace (W. W., jr.) Clays for paving brick. *Paving and Municipal Engineering*, IX. 1. 1895.
Wheeler (Herbert A.) Paving brick tests. *Clay Worker*, XXIV, 2. 1895.
—Vitrified paving brick: a review of present practice in the manufacture, testing and uses of vitrified paving brick. Indianapolis. 1895. 8vo, pp. 84. *Patent Office Library*.
—(2nd ed.) 1910. pp. 121. *Patent Office Library*.
Wilkins (W. G.) Paving brick tests. *Paving and Municipal Engineering*, IX, 4. 1895.
Williams (William S.) Shale paving brick. *Clay Worker*, Feb., 1895.
Davis (James A.) Brick pavements. *Brick*, Oct., 1896.
Harrington (F. F.) Experiments on vitrified paving brick. Association of Engineering Societies, *Journal*, Aug., 1896, *illus*.
Hathaway (S. J.) Brick paving. *City Government*, Vol. I. 1896.
Landis (H. K.) The manufacture and use of brick for street paving. *Engineering Magazine*, Sept., 1896.
McClanahan (T. S.) Cost of single-course brick street pavement. *Municipal Engineering*, Oct.. 1906.
Orton (Edward, jr.) Standard specifications and methods of testing paving brick. *Paving and Municipal Engineering*, Jan., 1896.
Thompson (A. D.) Tests for paving brick. *City Government*, Vol. I; *Municipal Engineering*, Nov., 1896.
Tridell (T. C.) Comparative value of side cut, end cut, and repressed brick for street paving. *Brick*, Feb., 1896.
Underwood (M. H.) Brick pavements the best. *Brick*, March, 1896.
***U.S.A.:** *Office of Roads Inquiry*. Circular 25: Brick paving for country roads, by Roy Stone. Washington. 1896. 8vo, pp. 7, *illus*.
Williams (William S.) Paving country highways. *Brick*, Feb.; *Clay Record*, Feb. 26, 1996.
Expansion of brick pavements in hot weather: reports. *Engineering Record*, July 17, 1897.
A specification for brick paving. *Surveyor*, Sept. 17, 1897.
Standard specifications for paving brick tests. *Municipal Engineering*, March and April, 1897.
Tests for paving brick. *Engineering News*, May 6, 1897.

Eayrs (J. T.) Brick paving for carriage-ways. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 23, pp. 397–429; *Surveyor*, July 23, 1897.

Haldeman (J. R.) How to lay brick pavements. *Clay Record*, July 14, 1897.

Harrington (F. F.) A new testing machine and the cross-breaking test of paving brick. Association of Engineering Societies, *Journal*, Jan., 1897.

Illinois Society of Engineers and Surveyors. Report of Committee on Paving Brick Specifications and Tests. *Annual Report* of Society, 1897.

Miller (J. Edward) A country road paved with brick. Illinois Society of Engineers and Surveyors, *Annual Report*, 1897.

Orton (Edward, jun.) Investigation of the benefit of structure on the wearing power of paving brick. *Brick*, Feb., 1897.

—Report of the Commission on paving brick tests. *Brick*, Feb., 1897.

—Report of Commission on standard specifications and methods of testing paving brick. *Clay Record*, April 29, 1897.

—The wearing power of paving brick. *Municipal Engineering*, March, 1897.

Sibley (J. W.) Vitrified brick: manufacture and advantages as a paving material. *Brick*, Aug., 1897.

Smith (A. W.) Brick paving in small towns. *Municipal Engineering*, Feb., 1897.

Thompson (Almon D.) Standards tests for paving brick. *Municipal Engineering*, April, 1897.

Noise on brick pavements. *Municipal Engineering*, April, 1898.

Testing paving brick. *Engineering Record*, June 18, 1898.

What should be expected of paving brick? *Clay Record*, Oct. 10, 1898.

Brown (Charles Carroll) Brick paving. *City Government*, March, 1898.

—Tests for paving brick. *Municipal Engineering*, July, 1898.

Hopkins (T. C.) Paving bricks. *Engineering Journal*, Feb., 1898.

Howe (Irving E.) Brick paving. Association of Engineering Societies, *Journal*, March, 1898.

Kemmler (E. A.) Random notes on the construction of brick pavements. *Municipal Engineering*, Feb., 1898.

Brick paving for roads. *Surveyor*, March 3, 1899.

Hastings (L. M.) Brick paving in several cities. *Engineering Record*, Oct. 14; *Municipal Engineering*, Nov., 1899.

Hatcher (E. N.) Vitrified brick for street paving. *City Government*, Feb., 1899.

Hatt (W. Kendrick) Effect of moisture on the results of the rattler test of paving brick. *Brick*, Sept. 1, 1899.

—Methods of testing paving brick. *Engineering Record*, March 4, 1899.

Jones. A new method of testing paving brick. *Clay Record*, March 27th, 1899.

Kemmler (E. A.) Brick paving. *Engineering Record*, Dec. 23, 1899.

March (H. J.) Paving brick and brick pavements. Association of Engineering Societies, *Journal*, Aug., 1899.

Plumb (F.) Secrets of success in making good paving brick. *Municipal Engineering*, April, 1899.

Thompson (Almon D.) Brick pavements and paving brick. *Brick*, Feb., 1899.

—The development of the paving brick industry. *Municipal Engineering*, March, 1899.

Brick paving. *Engineering Record*, March 24, 1900.

Standard paving brick tests. *Engineering Record*, March 17, 1900.

Elliott (A. C.) Tests for paving brick. *Surveyor*, Aug. 3, 1900.
Grimes (George R.) Construction of brick pavements. *Brick*, March 1; *Municipal Engineering*, March, 1900.
Hatt (W. Kendrick) Paving brick tests. *Engineering Record*, April 7, 1900.
Kemmler (E. A.) Construction and maintenance of brick pavements. *Engineering Record*, Sept. 22; *Brick*, Nov.; *Municipal Engineering*, Sept., 1900.
Luten (Daniel B.) Method of comparing rattler tests of paving brick. *Municipal Engineering*, April, 1900.
—Paving brick and brick pavements. *Engineering Record*, March 3, 1900.
Stevens (F. B.) The market side of the paving brick industry. *Municipal Engineering*, March, 1900.
Talbot (Arthur N.) Paving brick and brick pavements. *Engineering Record*, March 24, 1900.
Thompson (Almon D.) Tests for paving brick. *Municipal Engineering*, Jan., 1900.
Expansion of brick pavements. *Engineering Record*, Aug. 10, 1901.
*Glass street paving in Paris. *Municipal Journal*, May 3, Nov. 29, 1901.
Tests for paving brick. *Brick*, Sept., 1901.
Beasley (H. E.) Requirements of brick for paving purposes. *Brick*, Feb., 1901.
Blair (W.) Durability of brick streets. *Brick*, May, 1901.
Gleaves (Taylor) Brick pavements and the engineer. *Brick*, Sept., 1901.
Luten (Daniel B.) Expansion in brick pavements. *Engineering News*, March 14, 1901.
Huston (Samuel) Paving a country road with brick. *Engineering News*, Sept. 25, 1902.
Judson (William Pierson) Vitrified brick pavements. *Municipal Journal and Engineer*, Aug., 1902.
Practice in laying brick pavements. *Municipal Journal and Engineer*, Feb. 1903.
Baker (Ira Osborn) How to lay brick pavements. *Municipal Journal and Engineer*, March, 1903.
Tillson (George W.) Brick pavements. *Municipal Journal and Engineer*, Sept., 1903.
Baker (Ira Osborn) Brick pavement construction. *Municipal Journal and Engineering*, May 1904.
—Neglected details in brick pavement construction. *Brick*, June, 1904.
Gearheart (O. L.) Concrete foundation and cement filler for brick pavement. *Engineering Record*, Feb. 13, 1904.
Brick pavement specifications. *Municipal Engineering*, June, 1905.
Brick paving. *Municipal Journal and Engineer*, Dec., 1905.
Glass paving and building bricks. *Scientific American Supplement*, June 24, July 1, 1905.
Baker (Ira Osborn) Joint fillers for brick pavements. *Municipal Engineering*, March, 1905.
Fulwider (John W.) Brick pavements. *Municipal Engineering*, Feb., 1905.
Innes (H. C.) What are the relative merits of cement and asphalt fillers for brick pavements? *Brick*, Feb., 1905.
Talbot (Arthur N.) Paving brick. *Municipal Engineering*, March, 1905.
Brick pavings and fillers for carriageways. *Surveyor*, March 23, 1906.
The construction of brick pavements. *Engineering News*, Aug. 30, 1906.

Vitrified brick for paving purposes. *Engineering Record*, April 14, 1906.

Baker (Ira Osborn) The construction and care of brick pavements, 1906. Reprint of part of report on "Paving Brick Industry of Illinois," prepared for the Illinois Geological Survey.

Brick pavements. *Municipal Engineering*, June, 1907, *illus.*

Cement filler for brick pavements. *Municipal Engineering*, Aug., 1907.

Howard (J. W.) Requirements and tests for best qualities of paving bricks. *Surveyor, Supplement*, Oct. 25, 1907.

Comparative strength of brick and concrete foundations for brick pavements. *Municipal Engineering*, April, 1908.

Atwater (C. G.) Hints on fillers for brick and block pavements. *Engineering-Contracting*, June 10, 1908.

Blair (Will P.) The proper construction of brick street pavements. *Municipal Engineering*, Nov., 1908.

—Vitrified brick pavement construction. *Municipal Journal and Engineer*, March 4, 1908, *illus.*

—Care in the construction of vitrified brick streets. *Engineering News*, Nov. 25, 1909, *illus.*

Hitchcock (A. P.) Roads of vitrified brick. *Country Life*, March, 1909.

Brick roads for the automobile. *American Homes*, Feb., 1910, *Supplement.*

Blair (Will P.) Brick paved highways. *Municipal Engineering*, June, 1910, *illus.*

—Discussing brick for pavement. *Automobile*, July 20, 1911.

—Vitrified brick street pavements. *American City*, Nov., 1911.

Hatton (Herbert W.) Brick pavement problems. *Municipal Journal and Engineer*, Nov. 22, 1911.

Whitmore (Earle R.) Cracking of cement-grouted brick pavements. *Municipal Engineering*, Feb., 1911.

Howard (James E.) Strain measurements of brick pavements. *Municipal Journal and Engineer*, April 4, 1912, *illus.*

(c) *Flag and Stone Block Paving.*

Mihálik. Praktische Anleitung zum Bau der Strassen aus Klinkern. 2nd ed. 1857.

Osthoff (Georg) Die Klinker und die Klinker-Strassen. (*Deutsche Bautechnische Taschenbibliothek, Heft* 117.) Leipzig. 1882. 12mo, pp. 51. 7814.a.
Bibliography p. 51.

Composite pavements. *Engineering*, Dec. 14, 1883.

Composite pavements. *Engineering News*, March 29, 1884.

Dietrich (E.) Die Gewinnung der Baumaterialien für die Stein-strassen. [Berlin. Kgl. Technische Hochschule, Festschrift]. 1884. 4to. 8357.l.4.

Cement paving. *Scientific American Supplement*, Feb. 27, 1886.

Wright. Slag brick paving. *Lehigh Engineering Journal*, Feb. 1889.

Nicolls. Noiseless stone pavements. *Engineering News*, Aug. 2., 1890.

Granite block pavement. Association of Engineering Societies, *Journal*, Aug., 1892.

Granite paving blocks. *Street Railway Journal*, Oct., 1892.

Brinton (Walter) Street paving [with granite blocks] Engineers' Club of Philadelphia, *Proceedings*, No. 2, pp. 136–140. 1892.

A noteworthy [concrete] footway pavement. *Surveyor*, Jan. 25, 1894.

Artificial paving slabs. *Surveyor*, Dec. 11, 1896.

How to lay "cement" street paving. *Illustrated Carpenter and Builder*, July 10, 1896.

Clinker concrete for paving of footways: report to the Shoreditch Vestry. *Surveyor*, Dec. 24, 1897.
Methods of cement testing. *Municipal Engineering*, April-July, 1897.
Pavements from waste coal ashes. *City Government*, Sept., 1897.
Specifications for cement walks. *Municipal Engineering*, Sept., 1897.
Grimshaw (Robert) Artificial stone pavements. *Municipal Engineering*, Oct. 1897.
—Cement paving in Europe. *Municipal Engineering*, Aug., 1897.
Cement grout for pavements. *Engineering Record*, May 28, 1898.
The relative cost of concrete mixtures. *Municipal Engineering*, Jan., 1898.
Brown (Charles Carroll) Stone block street pavements. *Stone*, June, 1898.
Briggs (Josiah A.) Construction of granite block pavements. *Municipal Engineering*, Sept., 1900.
Fisher (E. A.) Construction of stone block pavements. *Municipal Engineering*, Oct., 1900.
Josiah (A.) Construction of stone block pavements. *Municipal Engineering*, Sept., 1900.
Tests of clinker concrete paving slabs. *Surveyor*, Feb. 22, Aug. 30, 1901.
Peckham (S. F.) Cement for a modern street. *Popular Science Monthly*, Dec., 1901, *illus.*
Rust (C. H.) The relative merits of Portland and natural cements for street foundations. *Municipal Engineering*, Nov., 1901.
*From quarry to city; where tramway granite comes from: some particulars of a great business. *Municipal Journal*, June 6, 1902.
Crafts (F. H.) How to lay Portland cement flagstone walks. *Municipal Engineering*, Oct., 1902.
Comparative reports of general practice: concrete flag pavements. *Surveyor*, Oct. 9, 1903.
Concrete flag pavements. *Surveyor*, Sept. 4, Oct. 16, 1903.
Hand and machine-pressed concrete flags. *Surveyor*, Nov. 6, 1903.
Beery (P. B.) Portland cement side-walk construction. 1904.
Artificial stone for footways. *Surveyor*, March 3, 10, 1905.
Gridley (A. T.) Practical work of constructing side-walks (of cement) *Municipal Engineering*, Feb., 1905.
Moyer (Albert) Suggestions covering combined curb and gutter (of cement) *Engineering Record*, Nov. 4, 1905.
Weber (H. L.) Concrete paving and paving materials. *Municipal Engineering*, May, 1905.
An overhanging road: interesting use of ferro-concrete in Ireland (at Waterford) *Surveyor*, Oct. 19, 1906.
Rexford (E. E.) How to make cement walks. *Outing*, Oct., 1906.
Saylor (H. H.) Making a cement side-walk. *Country Life*, Dec., 1906, *suppl.*
Luey (W. A.) Hassam [concrete] pavement. *California Journal of Technology*, March, 1907.
Moyer (Albert) Cement side-walk paving. *Cement*, Jan., 1907.
Weber (H. L.) Modern methods in cement paving. *Cement Age*, May, 1907.
Cement sidewalks. *Municipal Journal and Engineer*, Nov. 4, 1908, *illus.*
Concrete paving for streets. *Engineering News*, Aug. 20, 1908, *illus.*
Improved roads: the "Durax" granite system. *Automotor Journal*, Feb. 22, 1908, *illus.*
Dewey (Harry S.) The Blome concrete pavement. *Municipal Engineering*, Dec., 1908.
Leonard (J. S.) Flagstone walk of concrete. *Country Life*, Sept., 1908.
Palliser (Charles) Modern cement sidewalk construction. A practical treatise for the workman. New York, 1908, 8vo, pp. 64, *illus.*

M'Cullough (Ernest) Concrete roadways. *Engineering-Contracting*, Sept. 1, 1909.

Page (Logan Waller) The possibilities of Portland cement as a road material. *Engineering News*, Dec. 23, 1909.

Riegler (L. J.) Failures in concrete sidewalks and how to correct them. *Engineering News*, April 1, 1909.

Ross (Charles W.) Concrete roadways. *Canadian Engineer*, June 4, 1909, *illus.*

Thomson (Sanford E.) Concrete in highway construction. 1909.

Warren (George C.) Concrete pavement foundation. *Municipal Journal and Engineer*, Dec. 1, 1909.

Un nuovo materiale da pavimentazione. *Il Cemento*, Nov. 15, 1910, *illus.*

Specifications for concrete sidewalks, curbs and gutters and pavements. *Municipal Engineering*, April, 1910.

Brown (Reginald) Artificial stone for footways: *with discussion.* Association of Municipal and County Engineers, Proceedings, Vol. 36, pp. 117–131, *illus.* 1910.

Pearson (James) The use of concrete in the construction of pavements. *Canadian Engineer*, April 29, 1910.

Wright (George C.) Notes on the use and cost of concrete blocks in roadway construction. *Cement*, March, 1910.

Novel reinforced concrete pavements. *Municipal Journal and Engineer*, Jan. 18, 1911.

Reinforced concrete roads. *American City*, Nov., 1911.

Bainbridge (Cecil) Paving roads with refuse. *World's Work*, March, 1911.

Landfield (Jerome B.) Some notes on concrete sidewalk construction. *Cement Age*, Jan., 1911.

Lykken (H. G.) Bituminous concrete pavements. *Municipal Engineering*, Nov., 1911.

McLean (W. A.) Cement concrete in highway construction. *Canadian Engineer*, April 13, 1911.

Moyer (Albert) Cement sidewalk paving. *Scientific American Supplement*, March 25, 1911, *illus.*

Steel forms for constrncting concrete sidewalk, curb, and gutter. *Engineering-Contracting*, Sept. 4, 1912, *illus.*

Code (S. B.) Concrete sidewalks. *Canadian Engineer*, Jan. 4; *Engineering Magazine*, March, 1912.

Egleston (Howard) Method and cost of constructing a concrete street pavement. *Engineering and Contracting*, Feb. 28, 1912.

Green (P. E.) Concrete pavements: their advantages and disadvantages. *Engineering News*, Sept. 26, 1912.

Groves (E. W.) Cement pavement, surfaced with bitumen and sand. *American City*, March, 1912.

Page (Logan Waller) Portland cement concrete roads *Engineering Record*, May 25, 1912.

—The use of concrete in road construction. *Surveyor*, July 26, 1912.

***U.S.A.** *Office of Public Roads.* Bulletin 46. Oil-mixed Portland cement concrete: by Logan Waller Page. Washington, 1912. 8vo, pp. 28, *illus.*

(d) *Macadam.*

Aveling (Thomas) and **Porter (—)** Steam road rolling.

Burgoyne. On rolling new-made roads.

Parry (A. W.) The use of steam rollers.

Macadam (John Loudon) Remarks on the present sytem of road-making, with observations deduced from practice and experience. . . . Bristol, 1816. 8vo, pp. 32. 8768.ec.3 (1)

—(2nd ed.) pp. 47. Pam. 79.
—(3rd ed.) 1820. pp. 196. *Patent Office Library.*
—(4th ed.) London, 1821. 1136.k.12.(3).
—(5th ed.) 1822. 1028.h.11.(1).
—(7th ed.) 1823. pp. viii, viii, 236.
—(9th ed.) Revised, with an appendix, and report from the Select Committee of the House of Commons, June, 1823. 1827. pp. viii, viii, 236. 8768.i.18.
—(German translation from 7th ed.) By F. Vogel. Darmstadt. 1825.

Macadam (John Loudon) A practical essay on the scientific repair and preservation of public roads; presented to the Board of Agriculture. 1819. 8vo, pp. 18. 8768.cc.3 (2).

***U.K. Govt.** Report from Select Committee on Mr. M'Adam's petition respecting road-making. 1823. (476) v. 53.

Prospectus of the Patent Biangular Pavement. 1826.

Schele (S.) Vorlesungen über J. L. Macadam's Chausseebausystem. Stuttgart. 1827. 8vo.

Berthault-Ducreux (Claude Jean Baptiste Alexandre) De l'art d'entretenir les routes: ou, comparaison de trois systèmes d'entretien, *savoir*: (1) celui de MacAdam; (2) celui généralement usité en France; (3) celui de M. B. D. Paris 1834. 8vo, pp. 200.

Polonceau (Antoine Rémi) Notice sur l'amélioration des chaussées en cailloutis, des accotemens des routes, et des chemins en terre. Paris. 1834. 4to. 714.h.20.

Cassell (John Henry) A treatise on roads and streets; wherein the advantages of a patent invention for the paving of streets, and the making of roads, are . . . explained. 1835. 12mo, pp. 31. Pam. 79.

Paulucci (Hamilcar von) Der Chausseebau in England, mit besonderer Rücksicht auf die dortigen Schlegelstein und macadamisirten Strassen. Wien. 1838. 8vo. 8776.dd.10.

Telford (Thomas) Rules for making and repairing roads as laid down by the late T. Telford . . . Extracted, with additions, from a treatise on the principles and practice of levelling, by F. W. Simms. 1837? 8vo. 8767.c.6.(1).

Burgoyne (Sir John Fox) Remarks on the maintenance of macadamised roads. 1843.
—(Reprinted by Tasmanian Government) 1849. Hobart Town. 8vo. 8776.bb.

Polonceau (Antoine Rémi) Notice sur l'amélioration des routes en empierrement; et sur les conséquences de ces perfectionnements, suivie d'une instruction sur les dimensions des cylindres compresseurs. Paris. 1844. 4to. 714.i.20.

Jones (Auguste) Observations sur les routes dites MacAdam . . . suivies d'une réponse de W. MacAdam . . à M. Haussmann . . . et à M. C. D. Versluys. Bruxelles. 1861. 8vo. 8776.b.

Berthault-Ducreux (Claude Jean Baptiste Alexandre) Notions sur les principales questions que soulève en ce moment l'entretien des routes, et sur les meilleurs moyens de hâter le progrès de cet art. Paris. 1868. 8vo. 8765.d.

Paget (F. A.) Report on the economy of steam road-rolling. 1870. 8vo, pp. vi, 69.

***Middlesbrough**: *Town Council.* Summary of information obtained from surveyors of sixteen large towns on relative merits of macadam and whinstone pavements. *Minutes and Records*, 1877–78, p. 292. 1878.

Codrington (Thomas) Local Government Board report on the maintenance of macadamised roads. 1879. 8vo, pp. 186. 8768.c.1.
—(2nd ed.) 1892. 8vo, pp. xii, 186. 8768.ce.14.

Buckham (E.) Steam road-rolling. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. 7, pp. 138,139. 1881.

Hall (James) Remarks as to the relative cost of macadamised roads and paved streets. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. 8, pp. 87–94. 1882.

Harrow for macadamised roads. *Scientific American Supplement*, April 21, 1883.

Macadam roads. *Engineering News*, Jan. 20, 1883.

Road locomotive roller. *American Engineering*, Dec. 26, 1884.

Debaure. Maintenance and rolling of roads. *Van Nostrand's Engineering Magazine*, April, 1884.

Brown (J. W.) Construction of macadam roads. *Scientific American Supplement*, Nov. 13, 1886.

—The construction and maintenance of macadamized roads. Association of Municipal and Sanitary Engineers' Proceedings, Vol. 13, pp. 90–100. 1887.

Stock. Valuation of road metal and setts for pavements. *Engineering News*, Sept. 22; *Engineer*, Aug. 31, 1888.

Telford-Macadam pavements. *Engineering News*, Sept. 7, 1889, *illus.*

Hewitt (W.) The maintenance of macadamised roads: *with discussion.* Surveyors' Institution, Transactions, Vol. 21, pp. 19–64. 1889.

Paving stones for highway construction. Association of Engineering Societies, *Journal*, Aug., 1892.

Roads and road-rollers. *Cassier's Magazine*, Aug., 1892, *illus.*

Potter (Isaac B.) Macadam and Telford roads. *Good Roads*, Nov., 1892.

Browne (T. Johnstone) Country roads. *Surveyor*, Aug. 31, 1893.

Granite as a paving material. *Surveyor*, Sept. 6th, 1894.

Rolling of roads by steam-rollers. *Engineering Record*, June 23, 1894.

Collins (Arthur E.) Machinery as applied to the breaking up of macadam. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 20, pp. 104–125, *illus.*; *Surveyor*, Apr. 12, 1894, *illus.*

Greenwell (A.) Steam road-rolling. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 20, pp. 155–167; *Surveyor*, May 17, 1894.

Cost of maintaining macadam. *Paving and Municipal Engineering*, Feb. 1895.

Maintenance of macadamized roads. Institution of Civil Engineers, Proceedings, Vol. 122, p. 215; abstracted in *Engineering Record*, Nov. 9, 1895.

Aitken (Thomas) Macadamised roads. Institution of Civil Engineers, Proceedings, Vol. 122, abstracted in *Engineering Record*, Nov. 9, 1895.

A notable departure in macadam roads. *Engineering News*, Dec. 10. 1896.

Hooley (E. Purnell) Steam rolling; *with discussion.* Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 22, pp. 284–308. *illus.* *Surveyor*, July 17, 1896, *illus.*

Shaler (N. S.) Rocks suitable for road-making *Stone*, Nov., 1896.

U.S.A. *Road Inquiry Office.* Circular 21: Great Britain; methods of constructing macadamized roads (extract from report by Chief Engineering Inspector of Local Government Board). 1896.

Comparative reports of general practice; steam road-rolling. *Surveyor*, Apr. 23, 30, May 7, 1897.

Clark (Thomas) Stone-testing for the maintenance of macadamized roads. *Surveyor*, March 26, 1897.

Taylor (H. W.) Notes on the specifications of Tyneside roads. *Surveyor*, Nov. 26, 1897.
The genesis of street mud; Cardiff and the testing of road metal. *Surveyor*, Oct. 21, 28, Nov. 4, 1898, *illus.*
U.S.A. *Road Inquiry Office.* Circular 30. Repairs of macadam roads, by E. G. Harrison. Washington, 1898. 8vo.
Cardiff roads; complaint by the London Basalt Company. *Surveyor*, Apr. 21, 1899.
Cumberland main roads. *Surveyor*, Sept. 29, 1899.
Lancashire paving stone tests. *Surveyor*, May 19, 1899.
Macadam for streets. *Municipal Engineering*, Aug., 1899.
Tests of stone for road-making. *Surveyor*, Jan. 6, 1899.
The use of the steam-roller. *Surveyor*, Dec. 8, 1899.
Irwin (H.) Disputed points in connection with the construction and maintenance of macadamized roads. *Canadian Engineer*, Jan., 1899.
A disadvantage in steam-rolling. *Surveyor*, Jan. 12, 1900.
The formation of town roads. *Surveyor*, May 25, 1900.
A road-dressing machine. *Surveyor*, June 29, 1900, *illus.*
Road-making and road metal. *Automotor and Horseless Vehicles Journal*, July, 1900.
Thickness of macadam material. *Scientific American Supplement*, July 21, 1900.
***Page (Logan Waller)** Selection of materials for macadam roads. U.S. Dept. of Agriculture Year Book, pp. 349–356. 1900.
Reid (Harry Fielding) Qualities of good road metals. *Stone*, July, 1900.
Ruck (Frederick William) The main roads of Kent; their maintenance and repair. *Surveyor*, Sept. 28, 1900.
Gillette (Halbert Powers) Is the continuous repair system the most economical for macadam roads? *Engineering News*, June 6, 1901.
The selection of materials for macadam roads. *Engineering Record*, May 17, 1902.
Tests of macadam materials. *Surveyor*, May 9, 1902.
Biggs (C. H. W.) Analysis of macadam road construction; *with discussion.* Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 28, pp. 299–306. *Surveyor*, July 25; Summary in *Builder*, Aug. 30, 1902.
Road stones. *Surveyor*, Aug. 7, 1903.
McCullough (Ernest) Macadam roads and road specifications. *Engineering News*, Feb. 26, 1903.
Machine made road metal. *Surveyor*, Feb. 18, 1904, *illus.*
Rival road making machines. *Surveyor*, June 3, 1904.
Clarke (William) Notes on the Clee Hill basalt. *Surveyor*, Aug. 5, 1904.
***G. (T.)** Macadam road making. *Municipal Journal*, March 4, 1904.
Hackett (E. H.) Economical steam-rolling of Irish country roads. Dublin. 1904. 8vo.
***Merrin (W. T.)** Road making (Letter in reply to R. Wareing's article on Macadam roads. *Municipal Journal*, Feb. 12, 1904.
Page (Logan Waller) and **Cushman (Allerton S.)** The cementing power of road materials. *Engineering News*, Nov. 17, 1904.
U.S.A. *Office of Public Roads.* Bulletin. The cementing power of road materials, by Logan Waller Page. Washington. 1904. 8vo.
***Wareing (R.)** Road making. *Municipal Journal*. Feb. 5, 19, 1904.
*Hosack's patent scarifier. *Municipal Journal*, June 30, 1905, *illus.*
Macadamizing the Thames Embankment. *Surveyor*, Sept. 29, Oct. 6, 20, 27, Nov. 3, 1905.
*Road maintenance. (Supply of stone). *Municipal Journal*, May 26, 1905, *illus.*
The use of hard and soft road stones. *Surveyor*, Nov. 24, 1905.

Brown (J. W.) The construction and maintenance of macadamized roads. *Surveyor*, Oct. 27, 1905.

Lovegrove (E. J.) Attrition tests of road-making stones, with petrological reports by John S. Flett and J. Allen Howe. *Surveyor*, Nov. 3, 17, 24, Dec. 1, 8, 15, 22, 29, 1905, *illus.*

—Published in volume form in 1906. 4to, pp. xix, 80, 79 *illus.* 7106.d.12.

Ryves (Reginald) Broken stone roads. *Engineering*, Jan. 20, 1905.

U.S.A. *Office of Public Roads.* Study of rock decomposition under the action of water, by A. S. Cushman. Circular 38. Washington. 1905. 8vo, pp. 10, *illus.*

Attrition tests and petrological descriptions of British road-making stones. *Engineering News*, Nov. 15, 1906.

Joly (J.) The petrological examination of paving setts and road metal. *Surveyor*, Aug. 31, Sept. 7, 1906.

Stewart (W. J.) Gutters across walks for macadam pavements. *Surveyor*, June 8, 1906.

Aitken (Thomas) The construction of macadamized roads suitable for modern traffic. *Surveyor*, Dec. 6, 1907.

Bret. Note sur la piochage mécanique des empierrements. *Annales des Ponts et Chaussées*, 1907.

***U.S.A.** *Office of Public Roads.* Bulletin 28. The decomposition of the feldspars, by Allerton S. Cushman and Prevost Hubbard. Washington. 1907. 8vo, pp. 29.

*—Bulletin 29. The construction of macadam roads, by Austin B. Fletcher. Washington. 1907. 8vo, pp. 56, *illus.*

*—Bulletin 31. Examination and description of rocks for road building, by Edwin C. E. Lord. Washington. 1907. 8vo, pp. 29, 10 *plates.*

Crosby (Walter Wilson) Macadam road surfacing. *Surveyor*, Nov. 27, 1908.

Fletcher (A. B.) The construction of macadam roads. *Scientific American Supplement*, Aug. 1, 8, 1908.

Hackett (E. A.) Method and cost of repairing macadam roads by scarifying instead of by patching. *Engineering-Contracting*, Sept. 2, 1908.

Hende (P.) Comparaison du pavage et de l'empierrement au point de vue du prix de revient annuel. *Annales des Ponts et Chaussées*, No. V. 1908.

Johnson (A. N.) Specifications and notes on macadam road construction. Western Society of Engineers, *Journal*, Dec., 1908.

Economic hints for macadam road contractors. *Engineering-Contracting*, March 3, 1909.

Brodie (John A.) Notes on the tonnage-life and wear of stones in road surfaces. *Surveyor*, May 7, 1909.

Johnson (A. N.) Directions for making macadam roads without steam-roller. *Municipal Engineering*, June, 1909.

Stuart (Donald M. D.) The preparation of macadam. *Surveyor*, Feb. 19, 1909.

Black (D. T.) Economies and principles of macadam construction for towns. *Canadian Engineer*, March 4, 1910.

Hackett (E. A.) The steam rolling of roads. *Surveyor*, May 13, 1910.

Harrison (P. Walton) The Kentish ragstone quarries. *Architect*, Sept. 2, 1910.

Page (Logan Waller) Macadam roads and their preservation. Western Society of Engineers *Journal*, Feb., 1910.

Wynne-Roberts (R. O.) Up-to-date roads. Society of Engineers, May 2. *Local Government Journal*, June 17 and 25, 1910.

MacAdam, road maker. *Harper's Weekly*, July 8, 1911.

Macadam road surfaces. *Surveyor*, Oct. 13th *et seq.*, 1911.
The Rocmac method of road construction. *Canadian Engineer*, March 2, 1911, *illus.*
Foster (S. D.) Deterioration of macadam roads and the probable cure. *Scientific American*, Sept. 16, 1911.
Gullan (Hector F.) Relative value of road stones. *Surveyor*, June 9, 1911.
Harger (W. G.) Cost data on bituminous and water-bound macadam roads. *Engineering News*, July 13, 1911.
Hoyt (Charles H.) A proposed filler for macadam roads. *Engineering News*, Aug. 17, 1911.
Maughan (Walton) Steam rollers and road-rolling; management, working, and repairs. *Surveyor*, June 16, 1911.
Nathan (Cecil) The evolution of the macadam road. *Surveyor*, Oct. 20, 1911.
Richards (Frank) Pneumatic hammers for tearing up street pavements. *Engineering News*, Aug. 10, 1911, *illus.*
Robeson (J. S.) The bond of a road. *Municipal Engineering*, May, 1911.
Seymour (C. O.) Is the macadamized road out of date? *Surveyor*, April 28, 1911.
***U.K.** *Road Board.* Specification No. 7. General directions for surfacing an existing road with steam-rolled water-bound macadam. 8vo, pp. 10.
***U.S.A.** *Office of Public Roads.* Bulletin 37. Examination and classification of rocks for road-building, including the physical properties of rocks with reference to their mineral composition and structure. By Edwin C. E. Lord. Washington. 1911. 8vo, pp. 28, 10 *plates.*
Good road building: the scarifier and roller. *Scientific American*, June 15, 1912.
Preventing dust from wear on macadam streets. *American City*, April, 1912.
Surfacing an existing road with steam-rolled water-bound macadam. *Surveyor*, Jan. 12, 1912.
Flagg (Ernest) Stone pavements of England and America. *Municipal Engineering*, Feb., 1912.
Sargent (P. D.) Fundamental principles of macadam road construction. *American City*, May, 1912.

(e) *Tar Macadam.*

Tar paving. *Engineering News*, April 17, 1886.
Hall (Joseph) Tar macadam. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 17, pp. 99–108. 1891.
The use of tar macadam. *Surveyor*, Feb. 7, 1894.
Norwich: *City Engineer.* Tar macadam. Norwich. 1896. Fol.
Le Granite-Asphalte. *Génie Moderne*, Feb. 15, 1897.
Tar in road-making. *Gas World*, July 9; *Gas Engineers' Magazine*, April 10, 1898.
Campbell (A. H.) Tarred macadam in the construction of urban roads. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 24, pp. 200–213; *Surveyor*, July 1, 1898.
Warren (Fred J.) The development of bituminous pavements. *American Gas Light Journal*, Sept. 16, 1901.
—The possibilities of the use of coal-tar in bituminous pavements. *Municipal Engineering*, Nov., 1901.
Whinery (S.) A proposed asphalt-macadam pavement. *Engineering News*, June 6, 1901.
Tar-macadam: its manipulation, advantages, and disadvantages. *Surveyor*, May 2, 1902.

Burns (William H.) Bituminous macadam pavements. Association of Engineering Societies, *Journal*, May, 1902.
Owen (George H.) Tar macadam. *Engineering Record*, Aug. 9, 1902.
Warren (Fred J.) The development of the bituminous macadam pavement. *Engineering Record*, Oct. 11, 1902.
—Bituminous macadam pavement (extracts). *Engineering Record*, Jan. 25, 1902.
Kenyon (C. A.) Warren's bituminous macadam pavement. *Municipal Journal and Engineer*, Feb., 1903.
Warren (Walter B.) The bitulithic pavement. *Municipal Journal and Engineer*, Feb., 1903.
The road of the future: a patent tar macadam mixer. *Surveyor*, Oct. 28, 1904, *illus*.
Espitallier (G.) Le granite asphalt. *Génie Civil*, Oct. 29, 1904.
Hatton (John) Road-making in Buxton. *Municipal Engineering*, March, 1904, *illus*.
Hoyt (W. A.) The bitulithic pavement. *Municipal Engineering*, Feb., 1904.
*Dustless and sanitary roads (tar macadam). *Municipal Journal*, Sept. 15, 1905.
Improved macadamized roadways. *Surveyor*, June 23, 1905.
Points from Handsworth. *Surveyor*, Oct. 6, 1905.
Road-making and upkeep: proposals by the Godstone surveyor. *Surveyor*, Feb. 17, 1905.
Tar macadam proposals. *Surveyor*, Feb. 17, 1905.
Warren (Fred J.) Development of bitulithic pavement. *Municipal Journal and Engineer*, January, 1905.
*Dustless highways: new dustless road materials. *Municipal Journal*, Sept. 14, 1906.
*Tar macadam in the making. *Municipal Journal*, Feb. 23, 1906, *illus*.
Howard (J. W.) Bituminous pavements containing crushed stone. *Municipal Engineering*, November, 1906.
Dryland (A.) The use of tar in road construction. *Surveyor*, April 12, 1907.
Johnston (Robert) Highway maintenance and repair. *Surveyor*, May 10, 1907.
***Manning (G. W.)** Dustless road construction (tar). *Municipal Journal*, Sept. 13, 1907.
Wike (C. F.) Notes on tar macadam. Association of Municipal and County Engineers, Proceedings, Vol. 33, pp. 287–290; *Surveyor*, July 5; *Engineering News*, Aug. 8, 1907.
*The pavement of the future: road making from "Lithofalt" blocks. *Municipal Journal*, May 1, 1908.
Brodie (J. S.) Tar macadam for roads. Sanitary Congress. 1908.
Crosby (Walter Wilson) Sampittic surfacing. American Society of Civil Engineers, *Proceedings*, May, 1909, *illus*.
Hooley (E. Purnell) Tar and its uses in modern road construction. *Canadian Engineer*, Sept. 24, 1909.
Richardson (Clifford) Asphalt macadam roadways. *Engineering Record*, July 17, 1909.
Smith (J. Walker) Dustless roads: tar macadam. A practical treatise for engineers, surveyors and others. 1909. 8vo, pp. 225; 24 *illus*. 2246.e.13.
Specifications for bituminous concrete pavement. *Municipal Engineering*, April, 1910.
Breitenfelder (Karl) Ueber Teermakadam und eine neue Teermakadammischmaschine, System "Breining." *Oesterreichische Wochenschrift für die Oeffentliche Baudienst*, Feb. 19, 1910, *illus*.

Crosby (Walter Wilson) The use of binding materials in the construction of macadamized roadways. *Engineering-Contracting*, Sept. 7, 1910.
Gladwell (A) Tar-bound road surfaces. *Sanitary Record*, Aug. 8, 1910.
Kenyon (Clarence A.) Bituminous highway construction. *Municipal Engineering*, Feb., 1910.
Kingsley (E. A.) and **Warren (George C.)** Bituminous pavements, patented and otherwise. *Municipal Engineering*, Nov., 1910, *illus.*
Newberry (F. E.) Tar-macadam roads. *Progressive Age*, April 1, 1910, *illus.*
Smith (J. Walker) Tar-macadam: a plea for standardisation. *Surveyor*, April 22, 1910.
Wade (William) The use of tar for road-making and repairs. *Surveyor*, Jan. 21; *Builder*, Feb. 19, 1910.
Warren (George C.) Bituminous roads—mixed and poured. *Engineering-Contracting*, Aug. 10; *Building News*, Sept. 16, 1910.
Method and cost of constructing tar-grouted macadam. *Engineering-Contracting*, March 29, 1911.
Agg (T. R.) The use of bituminous compounds in macadam and earth-road construction. Illinois Society of Engineers and Surveyors. 1911.
Ashworth (George H.) and **Laithwaite (Vincent W.)** Ten years' experience of tar-grouted granite macadam in a Lancashire urban district. *Surveyor*, March 3, 1911.
Blanchard (Arthur H.) Bituminous materials in highway work. *Manufacturers' Record*, May 4, 1911.
—Distributing and mixing machinery for construction and maintenance of bituminous pavements and surfaces. *Municipal Engineering*, Nov., 1911.
Harrison (P. Walton) Notes on Kentish rag tar-macadam. *Surveyor*, May 26, 1911.
Hubbard (Prevost) Definitions of bituminous materials. *Surveyor*, March 10, 1911.
The Crompton pavement. *Surveyor*, Oct. 4, 1912.
Brodie (John S.) Suggestions towards a standard specification for bituminous carriage-ways. *Surveyor*, Aug. 23, 1912.
Chadwick (C. T.) Re-surfacing a carriage-way on the "Chadwick" system of bituminous-bound macadam. *Surveyor*, Aug. 30, 1912.
Crosby (Walter Wilson) Bituminous roads. *Municipal Engineering*, Jan.; *American City*, Jan., 1912.
—Changes noted in a tar exposed to traffic and weathering, when used in a road surface. *Surveyor*, April 5, 1912.
Dean (A. W.) Bituminous road surfaces. *Engineering Magazine*, Aug., 1912.
Hubbard (Prevost) Bituminous roads and pavements and their materials of construction. *Franklin Institute Journal*, April, 1912.
Johnson (A. N.) Bituminous macadam construction. *Municipal Engineering*, Feb., 1912.
Nathan (Cecil) Asphalt-macadam. *Surveyor*, July 19, 1912.
Schutte (A. E.) Bitucrete pavement. *Municipal Engineering*, April, 1912.

(f) *Wood Blocks.*

New York: *Street Committee.* Report upon the resolution on continuing the wooden pavement in Broadway, and the relative merits of macadamizing and wood for paving streets. 1838.
Nicolson (Samuel) The Nicolson pavement, invented by S. N. Boston. 1855. 8vo. 7814.bbb.
(2nd ed.) 1859.

Johnson (Frank G.) The Nicolson pavement, and pavements generally. New York. 1867. 8vo. 8776.cc.6.
The true system of wood pavement. 1877. 8vo. 7942.g.6.(17).
Howarth (Henry) Wood as a paving material under heavy traffic. Institution of Civil Engineers, *Proceedings*, Vol. 58. 1879.
Wheeler (Joseph) On the best timber for paving and building purposes, from a sanitary and scientific standpoint. 1879. 8vo. 7944.ee.6.(16).
Rounthwaite (R. S.) Wood pavements. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. 7, pp. 48–54. 1881.
Wood pavements. *Engineering*, June 6, 1884.
Cost of wood paving. *Engineering News*, Feb. 14, 1885.
Wood paving. *Engineering News*, Aug. 21, 1886.
Campbell. Wood as a road paving material. *Engineering News*, April 24, 1886.
Paris: *Conseil Municipal.* Travaux de pavage de bois en régie. Paris. 1888. 4to, pp. 195. 8768.f.1.
A new wood for paving. *Surveyor*, Dec. 15, 1892.
Wood as a paving material. *Engineering News*, Sept. 8, 1892.
Wood paving and horse accidents. *Surveyor*, June 2, 1892.
Appleton (Thomas) Cedar block pavement. Association of Engineering Societies, *Journal*, Nov., Dec., 1892.
Cole. Iron and oak combination pavements. American Society of Mechanical Engineers, *Transactions*, Vol. XIII, *illus.* 1892.
Croyle (James) Letter on use of karri and jarrah woods for paving. *Surveyor*, March 16, 1893.
Norrington (James) Tests of karri and jarrah as wood paving. *Contract Journal*, March 18, 1893.
Wood pavement. *Surveyor*, April 5, 1894.
Blair (W. N.) The jointing of wood pavements. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 20, pp. 78–94; *Surveyor*, Jan. 18, 25, 1894.
Smith (Walter Alexander) Australian hardwood for pavements. Institution of Civil Engineers, Proceedings, Vol. 116; *Engineering Record*, Nov. 24, 1894.
Downing (M. A.) Wooden block pavements. *City Government*, Dec., 1896.
Norrington (J. P.) Hard wood paving. Association of Municipal and County Engineers and Surveyors, Proceedings. Vol. 22, pp. 91–101. 1896.
Petsche (Albert) Le bois et ses applications au pavage à Paris, en France et à l'étranger. Paris. 1896. 8vo, pp. xii, 481. 08766.bb.2. Bibliography, pp. 480–481.
Rodet (A.) and **Nicolas (Dr.)** Le pavage en bois au point de vu de l'hygiène. Lyon. 1896. 8vo.
Hardwood paving. *Surveyor*, June 4, 1897.
Grimshaw (Robert) Maintenance of wood pavement in European cities. *Municipal Engineering*, April, 1897.
McCullough (Ernest) California redwood for street pavements. *Municipal Engineering*, June, 1897.
Petsche (A.) A hygienic view of wood paving. *L'Echo Forestier*; *Scientific American Supplement*, March 20, 1897.
Wood pavement and where it comes from. *Chambers's Journal*, July, 1898.
Hetherington (F. A.) Defects of creosoted wood block pavement. *Municipal Engineering*, Sept., 1898.
Kenyon (Clarence A.) Creosoted wood block pavement. *Municipal Engineering*, Sept., 1898.

Mason (Charles) The sanitary aspects of wood pavements. Sanitary Institute, *Journal*, April; summary in *Surveyor*, Sept. 24, 1897.
Experiences with wood pavements at Ipswich. *Engineering Record*, July 1, 1899.
Wood paving. *Surveyor*, Jan. 6, 1899.
Buckham (Edward) Notes on wood pavements in Ipswich. *Surveyor*, May 19, 1899.
A new street-paving wood. *Surveyor*, Nov. 9, 1900.
*Street paving: some comparative figures. *Municipal Journal*, May 24, 1901.
*A successful pavement. *Municipal Journal*, May 9, 1901.
*Wood for Cardiff streets. *Municipal Journal*, July 19, 1901.
Kummer (F. A.) Wooden pavements at home and abroad (extracts). *Engineering Record*, Oct. 26, 1901.
—The use of wood pavements under heavy traffic. *Engineering Record*, Oct. 18, 1902.
*Wood paving: a dramatic scene at Brighton. *Municipal Journal*, Feb. 13, 1903.
Kummer (F. A.) Wood paving in England and America. *Municipal Journal and Engineer*, March, 1903.
Algarrobo: a new wood for street paving. *Surveyor*, Jan. 22, 1904.
The genesis of wood pavement. *Surveyor*, Jan. 8, 1904.
Kummer (F. A.) Tests for wood paving blocks. *Municipal Engineering*, Nov., 1904.
Scott (T. H.) Wood paving [in England] *Municipal Journal and Engineer*, July, 1905.
Experiments in wood paving. *Scienlific American Supplement*, Nov. 3, 1906.
Kummer (F. A.) Recent developments in wood block paving. *Engineering Record*, Aug. 25; *Scientific American Supplement*, Sept. 15, 1906.
—Tests of other woods than yellow pine for pavements. *Municipal Engineering*, Nov. 1906.
Creosoted wood blocks and plant life: Bristol nurseryman's action. *Surveyor*, Aug. 2, 1907.
Innes (H. C.) Creosoted wood block paving. *Municipal Engineering*, July, 1908.
Creosoted wood block pavements. *Engineering News*, Feb. 18, 1909.
Bennett (Malcolm B.) Notes on wood block paving. *Surveyor*, July 16, 1909.
Hazlehurst (James Nisbet) Creosote oil for wood block pavements. *Municipal Engineering*, Dec., 1909.
Wood block pavements. *Municipal Journal and Engineer*, Dec. 7, 1910.
Wood paving; its practice, materials, and appliances. *Sanitary Record*, May 12, 1910.
Norrington (James P.) Wood pavements. *Surveyor*, April 22, 1910.
Toulon (P.) Un tampon métallique pour le pavage en bois. *Bulletin de la Société d'Encouragement*, March, 1910.
Green (Paul Evans) Notes on creosoted wood-block pavements. *Engineering News*, April 20, 1911.
Conversion of macadamized into wood-paved road: specification of works. *Surveyor*, Oct. 4, 1912.
Okes (Day I.) Wood block pavements from the construction standpoint. *Municipal Engineering*, April, 1912.
Wakelam (H. T.) Creosoted wood paving. *Surveyor*, Oct. 4, 1912.

TRAFFIC ON ROADS

1. History.

Felton (W.) A treatise on carriages. . . . 1794–5. *Supplement*, 1796. 8vo. 2 vols. 538.g.25–26.

***Milton (William)** The danger of travelling in stage coaches, and a remedy proposed to the consideration of the public. Reading. 1810. 8vo, pp. 87, xxxviii. 1102.k.64.

Markland (J. H.) On the early use of carriages in England, and on the modes of travelling. 1823.

Kitchiner (W.) and **Jervis (John)** The traveller's oracle; or, maxims for locomotion; containing precepts for promoting the pleasures, and hints for preserving the health of travellers, Part I, comprising estimates of the expenses of travelling on foot, horseback in stages, etc., with 7 songs for one, two, or three voices, composed by W. Kitchiner. Part II, comprising the horse and carriage keeper's oracle, rules for purchasing and keeping or jobbing horses and carriages, etc., etc., by John Jervis, the whole revised by W. Kitchiner, 2nd edition. 1827. 12mo, 2 vols.

Broadsheet, printed by J. Catnach. The new invented steam carriage, with woodcut of two steam carriages travelling on the road; also explanation, full account, and a "New Song" on the subject. Westminster. 1828(?) S.sh. 8vo. Tab.1850.b.3.(42**)

Herapath (John) A letter to the Duke of Wellington on the utility, advantages, and natural importance of Mr. Gurney's steam carriage. 1829. 8vo, pp. 48.

***Edinburgh Review,** October, 1832. Article on inland transport, deals with steam traction on roads.

Gurney (Sir Goldsworthy) Observations on steam carriages on turnpike roads. With returns of the daily practical results of working, the cause of the stoppage of the carriage at Gloucester, and the consequent official report of the House of Commons. 8vo. T.1421 (13).

Phillips (Sir Richard) A million of facts in the entire circle of the sciences, etc. [Frontispiece of the steam carriage running from Paddington to the Bank, 1832, and at columns 75–6 particulars of other steam coaches running on the roads from London.] 12mo. 1136.f.22.

—(Another ed.) 1853. 1136.l.23.

—(Another ed.) 1859. 12202.e.15.

—(Another ed.) 1872. 2324.c.1.

Bowie (Robert) A brief narrative proving the right of the late W. Symington, C.E., to be considered the inventor of steam land carriage locomotion, and also inventor and introducer of steam navigation. 1833. *Glasgow University Library.*

Concise history of steam carriages on common turnpike roads and the progress of their improvement. 1834. 8vo. T.1513 (18). *Glasgow University Library.*

Adams (William Bridges) English pleasure carriages; their origin, history, varieties, etc. 1837. 8vo, pp. 315. 538.g.28.

***Hancock (Walter)** Narrative of twelve years' experiments (1824–1836) demonstrative of the practicability and advantage of employing steam-carriages on common roads; with engravings and descriptions of the different steam-carriages constructed by the author, his patent boiler, wedge-wheels, and other inventions. 1838. 8vo, pp. 104, *illus.* 8768.c.34.

Rogers (J. W.) Plan proposed by Sir James Caleb Anderson, Bart, and J. W. R. . . . for establishing steam carriages for the conveyance of goods and passengers on the mail coach roads of Ireland. 1841. 8vo. 8756.bbb.4.

Horse-power applied to railways at higher rates of speed than by ordinary draught. With general observations on rail-roads, other roads, and locomotive power. 1844. 8vo. 1396.g.

The locomotive, or the steam engine applied to railways, common roads, and water, and an account of the atmospheric railway, by Peter Progress. 1848. 16mo, pp. 80, *illus.* 1396.b.24.

Young (Charles Frederick T.) The economy of steam power on common roads, in relation to agriculturists, railway companies, mine and coal owners, quarry proprietors, contractors, etc., with its history and practice in Great Britain . . and its progress in the U.S., by Alex. L. Holley and J. K. Fisher. 1860. 8vo, pp. xii, 423. 8765.c. Bibliography, p. 423.

Cross (Thomas) The autobiography of a stage-coachman. 1861. 8vo, 3 vols.

—(Another ed.) 1904. 2 vols. Tab.537.b.10.

Reynardson (Charles Thomas Samuel Birch) Down the road; or, reminiscences of a gentleman coachman. 1875. 8vo, 12 *plates.* 7907.g.19.

—(2nd ed.) 1875. 2264.c.12.

Lennox (Lord) Coaching, with anecdotes of the road. 1876. 8vo.

Thrupp (George Athelstane) The history of coaches. 1877. 8vo, *illus.* 2266.c.10.

Stratton (Ezra M.) The world on wheels; or, carriages, with their historical associations from the earliest to the present time. New York. 1878. 8vo, *illus.* 2270.bb.8.

Harris (Stanley) Old coaching days. With 12 illustrations by John Sturgess. 1882. 8vo, pp. 279. 7906.e.35.

Haworth (M. E.) Road scrapings; coaches and coaching. 8vo, pp. 202, 11 *plates.* 7907.g.28.

Berdmore (Septimus) [Nimshiwich] A scratch team of essays from the reviews. [Contains "Carriages, roads and coaches," etc., printed 1877] 1883. 8vo, pp. vii, 255. 12273.bb.3.

Macfie. Centenary of road locomotion. *Scientific American Supplement*, Feb. 16, 1884.

Harris (Stanley) The coaching age. Illustrated by John Sturgess. 1885. 8vo, pp. 468. 12352.ff.37.

Hooper (George N.) Improvements in road carriages. 1885.

Wilson (W.) Coaching past and present. Windermere. 1885. 8vo, pp. 34. 7908.a.59 (4).

Corbett (Edward) An old coachman's chatter, with some practical remarks on driving, by a semi-professional. 1891. 8vo, pp. viii, 304. 7907.h.38.

Fletcher (W.) History of steam locomotion on common roads. 1891. 8vo, pp. 288. 8767.g.1.

Fletcher (William) Steam locomotion on common roads. *Engineering Magazine*, July, 1893.

*Templer (*Lieut.-Col.*) Steam transport on roads. *Journal of the Royal United Service Institution*, Aug., 1894.

Crocker (G. G.) From the stage coach to the railroad train and the street car. Boston. 1900. 8vo, pp. 32. 08235.cc.1.

Rogers (Fairman) A manual of coaching. Philadelphia. 1900. 8vo, pp. 579, *illus.* 7908.h.13.

Uzanne (O.) La locomotion à travers l'histoire et les mœurs. Paris. 1900. 4to, pp. 281. 8766.h.10.

Gilbey (Sir Walter) Early carriages and roads. 1903. 8vo, pp. 122. 08235.cc.6.

Harper (C. G.) Stage-coach and mail in days of yore. 1903. 8vo, 2 vols. 08235.cc.5.

Montagu (Lord) *ed.* History of the first ten years of automobilism. 1906. 8vo.

d'Allemagne (Henri-René) Les moyens de transport à travers les âges. Paris. 1908. 8vo, pp. 15.

Hooper (W. Eden) The motor-car in the first decade of the twentieth century; a historical survey of mechanical road locomotion in England from the earliest times. 1908. 4to, *illus.* Tab.443.c.10.

2. Administration.

The case of the carriers and waggoners who carry goods to hire. 1740? Fol. 356.m.1.(66).

Case and reasons for disusing weighing engines on the turnpike roads. 1774. Fol. 215.i.4.(117).

***U.K. Govt.** Bill to regulate the turnpike toll on steam carriages. 1832 (293) iv. 489.

*—Act amending the Act of 3 Geo. IV, for regulating turnpike roads, so far as relates to the weights to be carried on waggons with springs. 1831. 4 and 5 Gul. IV., c. 81.

*—Bill to repeal portions of acts imposing prohibitory tolls on steam-carriages, and to substitute others, etc. 1836 (238, 308) vi. 67, 75.

*—Bill for regulating the tolls on steam carriages in use on common roads. [Not delivered.] 1859 (14 Sess. 2) ii. 397.

*—Bill for regulating the use of locomotives on turnpike and other roads, and the tolls to be levied on such locomotives, and on the waggons and carriages drawn or propelled by the same. 1859 (30 Sess. 2) i. 589; amended by Select Committee (67 Sess. 2) i. 593.

*—Minutes of evidence taken before the Select Committee on the Locomotive Bill; with the proceedings of the Committee. 1859 (116 Sess. 2) v. 351.

*—Bill for regulating the use of locomotives on turnpike and other roads, and the tolls to be levied on such locomotives, and on the waggons and carriages drawn or propelled by the same. 1860 (132) iv. 385; amended in Committee, (176) iv. 391; amended in Committee, and on recommittal, (257) iv. 397.

*—Bill for regulating the use of locomotives on turnpike and other roads, and the tolls to be levied on such locomotives, and on the waggons and carriages drawn or propelled by the same. 1861 (30) iii. 201; amended in Committee, (174) iii. 209.

*—Act 24 and 25 Vict., c. 70.

Aveling (Thomas) Road locomotives: an epitome of the new Road Locomotive Acts, 1861–65. 1865. 16mo, pp. 32. 6425.a.2.

***U.K. Govt.** Bill for further regulating the use of locomotives on turnpike and other roads for agricultural and other purposes. 1865. (63) ii. 665; amended in Committee, (116) ii. 669; amended in Committee, and on consideration as amended, (143) ii. 673; Lords' amendments, (246) ii. 679.

*—Act 28 and 29 Vict., c. 83.

—Reports to the War Department on Mr. Thomson's "Road Steamer," and as to its advantages for military purposes. 1870 (408) xlii. 653.

—Bill to consolidate and amend the laws relating to the use of locomotives on turnpike and other roads. 1872 (180) iii. 791.

—Bill to consolidate and amend the laws relating to the use of locomotives on turnpike and other roads. 1873 (88) ii. 37.

—Bill to amend the law relating to the use of locomotive engines on public roads. 1874 (81) iii. 233.

—Bill for regulating the use of locomotives on common roads, and for consolidating the various statutes relating thereto. 1877 (22) iii. 447.

Surveyor's main road account book, adapted for keeping the separate accounts of the maintenance of main roads, as required by the Highways and Locomotives (Amendment) Act, 1878. Wisbech. 1878. Obl. fol. 1891.b.2.

—(New ed.) 1880. 1853.a.7.

—(Another ed.) By G. Moore. 1889. 1881.a.14.

***Aveling (Thomas)** Road locomotives. An epitome of the Road Locomotive Acts, 1861, 1865, and 1878. For the use of owners and drivers in Scotland. 1878. 16mo, pp. 36. 6426.b.39.

—Road locomotives. An epitome of the Road Locomotive Acts, 1861, 1865, and 1878. With an introductory preface. 1878. 16mo, pp. 37. 6376.aa.35.

U.K. Govt. Bill for further regulating the use of locomotives on highways in Scotland. 1878 (271) iv. 473; Lords' amendments, (301) iv. 479.

*—Act 41 and 42 Vict., c. 58.

—Bill to amend the law relating to highways in England, and the Acts relating to locomotives on roads, and for other purposes. 1878 (95) iii. 399; as amended in Committee, (214) iii. 413; as amended in Committee, and on recommitment, (261) iii. 429; Lords' amendments, (298) iii. 451.

*—Act 41 and 42 Vict., c. 77.

—Bill to confirm certain Provisional Orders of the Local Government Board under the provisions of the Highways and Locomotives (Amendment) Act, 1878, relating to the counties of Buckingham, Kent, and Worcester. 1879 (161) iv. 261.

—Bill to confirm certain Provisional Orders of the Local Government Board under the provisions of the Highways and Locomotives (Amendment) Act, 1878, relating to the counties of Dorset, Montgomery, Northampton, Salop, Wilts, and York (East Riding). 1879 (186) iv. 269.

—Bill to confirm certain Provisional Orders of the Local Government Board under the provisions of the Highways and Locomotives (Amendment) Act, 1878, relating to the counties of Gloucester and Hereford. 1879 (185) iv. 291.

Lincolnshire: *Parts of Lindsey.* Highways and Locomotives (Amendment) Act, 1878. Report on main roads, by James Thropp. Spilsby. 1880. 8vo, pp. 8. 8248.dd.1.

Lobley (Joseph) The Highways and Locomotives (Amendment) Act, 1878. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. 6, pp. 192–204. 1890.

***U.K. Govt.** Bill to confirm certain Provisional Orders of the Local Government Board under the Highways and Locomotives Act, 1878, relating to the county of Salop. 1880 (124) iv. 145.

—Bill to amend certain provisions of the Highways and Locomotives (Amendment) Act, 1878 [as regards levying of county rate] 1881 (155) ii. 305.

*—Act 44 and 45 Vict., c. 72.

—Bill to confirm certain Provisional Orders of the Local Government Board under the Highways and Locomotives Act, 1878, relating to the East Riding of Yorkshire. 1881 (132) iii. 445.

—Bill to confirm certain Provisional Orders of the Local Government Board under the Highways and Locomotives Act, 1878, relating to the County of Kent. 1882 (129) iii. 379.

—Return showing the several highway districts, separate highway parishes, and urban sanitary districts in England and North Wales, to the authorities of which repayments have been made by the county authorities in respect of the maintenance of main roads, under the Highways and Locomotives Amendment Act, 1878, for the year ended March 25th, 1881, with the amount paid to each. 1882 (370) lxi. 343.

—Bill to confirm certain Provisional Orders of the Local Government Board under the Highways and Locomotives Act, 1878, relating to the county of Dorset. 1883 (193) vii. 223.

*—Act 46 and 47 Vict., c. 82.

—Bill to provide for the repair and maintenance of certain highways in the Forest of Dean, in the county of Gloucester. 1883 (148) vi. 65; amended by Select Committee (222) vi. 73.

—Bill to confirm certain Provisional Orders of the Local Government Board under the Highways and Locomotives Act, 1878, relating to the county of Montgomery. 1884 (226) iv. 205.

—Bill to confirm certain Provisional Orders of the Local Government Board under the Highways and Locomotives Act, 1878, relating to the county of Montgomery. 1886 (235—Sess. I.) iii. 347.

—Bill to confirm certain Provisional Orders of the Local Government Board under the Highways and Locomotives Act, 1878, relating to the North Riding of Yorkshire. 1887 (224) iii. 569.

—Bill to confirm certain Provisional Orders of the Local Government Board under the Highways and Locomotives Act, 1878, relating to the counties of Durham, Hertford, and Westmoreland. 1888 (258) iv. 531.

—Bill to confirm Provisional Orders of the Local Government Board under the Highways and Locomotives (Amendment) Act, 1878, relating to the counties of Gloucester and Wilts. 1890 (213) vi. 317.

—Bill to confirm a Provisional Order of the Local Government Board under the Highways and Locomotives (Amendment) Act, 1878, relating to the county of Berks. 1891 (381) v. 721.

—Bill to amend the law with respect to the use of locomotives on highways. 1895 (315—Sess. I.) v. 1.

Locomotives on highways. *Surveyor*, July 31, 1896.

Traction engines on roads. *Surveyor*, Aug. 28, 1896.

Jenkins (R.) Power locomotion on the highway: a guide to the literature relating to traction engines. 1896. 8vo, pp. 72. 011900.e.20.

U.K. Govt. Bill to amend the law with respect to the use of locomotives on highways. 1896 (285) v. 227; amended by Law Committee, (310) v. 233. Similar Bill (50) v. 239—not printed.

*—Act 59 and 60 Vict., c. 36.

*—Report from the Standing Committee on Law, etc., on the Locomotives on Highways Bill; with the proceedings. 1896 (293) x. 583.

London County Council. By-laws relating to locomotives on highways. No. 361. 1897.

***U.K. Govt.** Bill to amend the law with respect to the use of locomotives on highways. 1897 (128) v. 201; amended by Trade Committee (296) v. 213.

*—Report from the Standing Committee on Law, etc., on the Locomotives on Highways Bill; with the proceedings. 1897 (283) xi. 9.

Extraordinary traffic. *Surveyor*, Aug. 12, 1898.

Locomotives on highways. *Surveyor*, June 24, 1898.

U.K. Govt. Bill to amend the law with respect to the use of locomotives on highways, and with respect to extraordinary traffic. 1898 (122) v. 547; amended by Trade Committee, (242) v. 559.

*—Act 61 and 62 Vict., c. 29.

*—Report from the Standing Committee on Law, etc., on the Locomotives on Highways Bill; with the proceedings. 1898 (233) x. 51.

By-laws under the Locomotives Act, 1898. *Surveyor*, June 2, 1899.

The Locomotives Act, 1898. *Surveyor*, Jan. 27, 1899.

The resurrection of the road: a coming revolution. *Surveyor*, Sept. 29, 1899.

Copnall (H. H.) The law relating to locomotives on highways. 1899. *8vo, pp. 104. 6426.cc.23.

Gaches (L.) Highways and locomotives. A guide to the law relating to highways, bridges, footpaths, etc. 1899. 8vo, pp. 254. 6426.dh.13.

Hooley (E. P.) Notes on the Locomotives Act, 1898: *with discussion*. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. 25, pp. 84–103; *Surveyor*, Jan. 27, 1899.

The pigmy and the giant: "No costs" (Epsom *v.* L.C.C. under Locomotives Act, 1898). *Surveyor*, Aug. 31, 1900.

Traction engines and the highways; including "Notes on scheduled roads and bridges," by H. H. Humphreys. *Surveyor*, Dec. 21, 1900.

Extraordinary traffic on roads (correspondence). *Surveyor*, Feb. 1, 15, March 8, 1901.

Locomotives on highways; scheduled roads and bridges in Shropshire. *Surveyor*, Feb. 22, 1901.

Road locomotive traffic: report on local by-laws. *Surveyor*, Jan. 4, 1901.

*Extraordinary traffic on highways (Egham Rural District Council *v.* Gordon). *Municipal Journal*, May 9, 1902.

The liability for extraordinary traffic. *Surveyor*, Aug. 22, 1902.

***Thwaite (B. H.)** Why not a motor-car way through England? *Nineteenth Century*, Aug., 1902.

U.K. Govt. Bill to provide for the registration of motor vehicles, and to amend the Locomotives on Highways Act, 1896. 1902 (252) iv. 169.

Extraordinary traffic. *Surveyor*, April 10, 1903.

Road traffic and highway administration. *Surveyor*, Jan. 16, 1903.

Traffic problems: the necessity for new roads. *Surveyor*, March 6, 1903.

U.K. Govt. Bill intituled, an Act to amend the Locomotives on Highways Act, 1896. 1903 (301) iii. 403; amended in Committee, (317) iii. 413.

—Bill to provide for the registration of motor vehicles, and to amend the Locomotives on Highways Act, 1896. 1903 (243) ii. 643.

—Bill to provide for the regulation of traffic in streets. 1903 (111) iv. 519.

Extraordinary traffic: the time limit. *Surveyor*, April 22, 1904.
Heavy locomotives on highways: conference of London authorities. *Surveyor*, Dec. 30, 1904.
The liability for extraordinary traffic. *Surveyor*, Oct. 28, 1904.
***London County Council.** Conference on the use of heavy locomotives on highways in London. Proceedings at a meeting of representatives of the Council and the various London authorities on Nov. 18th, 1904. No. 823.
Ryves (Reginald) Traffic on country roads. *Surveyor*, Dec. 23, 1904.
U.K. Govt. Bill to provide for the regulation of traffic in streets. 1904 (229) iv. 311.
Williamson (J. A.) The Motor Car Acts, 1896 and 1903. 1904. 8vo, pp. 196. 6427.de.2.
Extraordinary traffic and public authorities (in Kent). *Surveyor*, March 3, 1905.
Extraordinary traffic on roads: Leeds and Harrogate arbitration award. *Surveyor*, Jan. 6, 1905.
***Leicestershire County Council.** [Account of L.G.B. enquiry concerning locomotive traffic on bridge over Grand Junction Canal.] Minutes of Council, Aug., 1905, pp. 81, 82.
Pettitt (D. H.) The law of motor cars and motor cycles. 1905. 8vo, pp. 168.
—The law of heavy motor cars. 1905. 8vo, pp. 196. 6427.f.13.
U.K. Govt. Bill to provide for the regulation of traffic in streets. 1905 (235) v. 161.
Heavy motor cars: proposed amended regulations. *Surveyor*, Nov. 2, 1906.
The Motor Car Commission's report. *Surveyor*, Aug. 3, 10, 1906.
***U.K. Govt.** Report of the Royal Commission on Motor Cars; with the evidence, appendices and index. 1906 [Cd. 3080–81] xlviii. 1, 89.
Conference of road engineers and road users. *Surveyor*, April 26, May 3, 10, June 14, 21, 28, 1907.
Extraordinary traffic. *Surveyor*, Feb. 22, March 29, 1907.
Extraordinary traffic: the time limit. *Surveyor*, July 12, 1907.
Jeffreys (W. Rees) The planning of the roads for the new traffic. *Surveyor*, April 19, *suppl.*; **Municipal Journal*, June 14, 21, 1907.
Mecredy (R. J.) Encyclopædia of motoring. 1907. 08767.e.25.
*Motors and roads: L.G.B. to take action. *Municipal Journal*, Aug. 28, 1908.
Motor Union. Digest of motor traction cases. 1908. 6427.f.9.
Copnall (H. Hampton) Extraordinary traffic: *with discussion*. Association of Municipal and County Engineers, Proceedings, Vol. 35, pp. 47–75. 1909.
Joynson-Hicks (W.) Extraordinary traffic in its legal aspect. *Surveyor*, May 28, 1909.
***U.K. Govt.** Bill to provide for the regulation of road traffic. 1909 (102) iv. 639.
Mahaffy (R. P.) and **Dodson (G.)** The law relating to motor cars. 1910. 8vo, pp. xlvi, 592.
***U.K. Govt.** Bill to assimilate the law in Ireland with the laws of England and Scotland in the matter of locomotive traction. 1910 (224) ii. 197; as amended by Committee B, (280) ii. 203.
*—Bill to assimilate the law in Ireland with the laws of England and Scotland in the matter of locomotive traction. 1910 (264) ii. 213.
*—Bill to provide for the regulation of road traffic. 1910 (92) v. 141.
*—Report from Standing Committee B on the Highways and Locomotives (Ireland) Bill; with the proceedings of the Committee, 1910 (251) vi. 355.

***U.K. Govt.** Bill to amend the law in Ireland with respect to the use of locomotives on public roads. 1911 (H.L. 151, 151a); as amended in Committee, (224).

*—Bill to amend the law in Ireland with respect to the use of locomotives on public roads, and with respect to extraordinary traffic. Commons Bill 199; as amended by Standing Committee, [306]; Lords' amendments, [389]. 1911.

*—Bill to provide for the better regulation of road traffic. 1911. Commons' Bill 104.

*—Report from Standing Committee on the Public Roads (Ireland) Bill: with proceedings. 1911 (H.C. 231.)

3. Effect on Road Surface.

Gilbert (Davies, M.P., F.R.S.) A treatise on wheels and springs for carriages.

Morin. Aide-mémoire: expérience sur le tirage des voitures.

U.K. Govt. Proclamation to restrain the excessive carriages in wagons and four-wheeled carts, to the destruction of high-ways. 1661. Fol. 1851.e.8.(111, 112).

—Proclamation for suspending the prosecution upon that part of the late Act of Parliament for enlarging . . . common highways, as concerned the breadth of the tire of wheels. 1662. S.sh. fol. 1851.e.8.(157–8).

Reasons humbly offered to the Honourable House of Commons why the wagoners ought not to be obliged to any certain weight. 1700 (?) S.sh. fol. 816.m.14.(26).

Rowe (Jacob) All sorts of wheel-carriages improved, where it is plainly made appear that a much less draught of horses, etc., will be required in waggons, carts, coaches and mills. 1734. 4to. 529.f.27.

***U.K. Govt.** Act to repeal so much of an Act of the last session, intituled "An Act for the preservation of the publick roads in . . . England," as obliges persons not travelling for hire to make use of waggons with wheels bound with streaks or tyres of a certain breadth, or the said streaks to be fastened with nails of a certain size. 1742. 15 and 16 Geo. II, c. 2.

Reasons against a Bill for permitting only carriages with broad wheels, and those drawn by two horses, to pass on turnpike roads, with regard to the counties within twenty-five or thirty miles of London. 1755. Fol. 213.i.3.(101).

Bourn (Daniel) A treatise upon wheel carriages, shewing their present defects; with a plan and description of a newly constructed waggon. 1763. 8vo. 8765.b.

Jacob (Joseph) Observations on the structure and draught of wheel carriages. 1773. 4to. 529.k.5.(2).

Bourn (Daniel) Some brief remarks upon Mr. Jacob's treatise on wheel carriages. 1773. 8vo. 8766.bb.

Jacob (Joseph) Animadversions on the use of broad wheels, and the preservation of the public roads. 1774.

***U.K. Govt.** Act to repeal a clause in an Act of 13 Geo. III, intituled "An Act to explain, amend, and reduce into one Act the general laws . . . for regulating the turnpike roads . . . in England . ," which regulates the width of the wheels, and the length of carriages liable to be weighed; and for indemnifying persons who have offended against the said clause. 1774. 14 Geo. III, c. 14.

***U.K. Govt.** Act for repealing a clause in an Act of 13 Geo. III, intituled, "An Act to explain, amend, and reduce into one Act the general laws . . . for regulating the turnpike roads in . . . England," which relates to the countersinking of the tire of the wheels of all waggons, wains, and other carriages, to be used on turnpike roads; and for explaining a provision in the said Act, with respect to the fellies and tire of carriages having the fellies of the wheels of the gauge of six inches or upwards. 1776. 16 Geo. III, c. 39.

*—Act for suspending for a limited time so much of an Act of 13 Geo. III, intituled "an act to explain, amend and reduce into one Act the general laws for regulating turnpike roads in England," as is to subject carriages having the fellies of the wheels thereof of less breadth or gauge than six inches, to the payment of double tolls; and for vacating contracts for leasing tolls. 1776. 16 Geo. III, c. 44.

Sharp (James) Descriptions of rolling carts and waggons for amendment and preservation of the roads on the plan recommended by by Mr. Dan Bourn in his ingenious treatise on wheel carriages. 1777 (?). S.sh.4to. 1811.a.(17).

***U.K. Govt.** Act for repealing so much of an Act of 13 Geo. III, intituled "an Act to explain, amend, and reduce into one Act, the general laws now in being for regulating the turnpike roads in England" as is to subject carriages having the fellies of the wheels thereof of less breadth or gauge than six inches, to the payment of double tolls, and for vacating contracts for leasing tolls. 1778. 18 Geo. III, c. 28.

Anstice (Robert) Remarks on the comparative advantages of wheel carriages of different structure and draught. Bridgewater. 1790. 8vo. 7943.cc.2.

***U.K. Govt.** Reports (2) from the Committee on General Turnpike Acts, with minutes of evidence. 1796. 1st series, Vol. X, pp. 748–756.

Deals with breadth of wheels, with weights allowable on different varieties of vehicles, with weighing engines, and with exemptions from or reductions of tolls.

Cumming (Alexander) Observations on the effects which carriage wheels, with rims of different shapes, have on the roads. 1797. 4to. B.476.(5).

—(Another ed.) 1809. B.275.(5).

—A supplement to the observations on the contrary effects of cylindrical and conical carriage wheels. 1809. 4to. B. 275.(6).

***U.K. Govt.** Reports (2) from the Committee on General Turnpike Acts. 1798. 1st series, Vol. X, pp. 757–758.

Deals with breadth of wheels, weights carried and reduction or remission of tolls on vehicles.

*—Bill to allow an additional number of horses to carriages on turnpike roads. 1803 (96) i. 343.

*—Bill respecting penalties on waggon wheels. 1805 (129, 138) i. 587, 591.

*—Bill respecting penalties on waggon wheels. 1806 (157) i. 371.

*—Reports (2) on the use of broad wheels. 1806 (212) ii. 241, reprinted 1808 (212–76) ii. 269; (321) ii. 249, reprinted 1808 (321–77) ii. 277.

Deacon (William) Observations on stage-waggons, stage-coaches, turnpike roads, toll-bars, weighing machines, etc., occasioned by a Committee of the House of Commons being appointed to enquire into the principles and effects of broad and narrow wheels. 1807. 8vo. 8766.aa.

Deacon (William) Remarks on conical and cylindrical wheels, public roads, wheel-carriages, etc. 1808. 8vo. 1136.h.6.
—(2nd ed.) 1810, in which is added a letter to Sir J. Sinclair. 1397.e.
***U.K. Govt.** Reports (3) on Acts regarding the use of broad wheels. 1809.
1st—(179) iii. 411.
2nd—(238) iii. 449.
3rd—(271) iii. 453.
***Edgeworth (Richard Lovell)** An essay on the construction of roads and carriages. 1813. 8vo, pp. ix, 202 and 194 4 *plates*.
—(2nd ed.) 1817. 538.g.27.
—Essai sur la construction des routes et des voitures, augmenté d'une notice sur le système de MacAdam. Tr. par M. Ballyet [from 2nd ed.] Paris. 1828. 8vo.
Cook (John, *Coachbuilder*) Cursory remarks on wheeled carriages. 8vo. 2 parts. 1397.d.28.
Fry (Joseph Storrs) An essay on the construction of wheel carriages as they affect both the roads and the horses; with suggestions relating to the principles on which tolls ought to be imposed, and a few remarks on the construction of roads. 1820. 8vo. 1136. k. 12.(2).
Fuller (T., *Coachbuilder*) An essay on wheel carriages. 1828. 8vo. T.1233.(1), *Glasgow University Library*.
Navier (Claude Louis Marie Henri) Considérations sur les principes de la police de roulage et sur les travaux d'entretien des routes. Paris. 1828. (?) 8vo. 712.g.39.(5).
***U.K. Govt.** Report from the Select Committee on steam-carriages, with minutes of evidence. 1831 (324) viii. 203.
*—Bill to amend 3 Geo. IV, so far as relates to the weights to be carried upon waggons with springs. 1834 (472) iv. 437.
*—Bill to amend 49 Geo. III, for amending the Irish Road Acts. 1834 (358) iii. 657.
*—Report from Select Committee on Mr. Goldsworthy Gurney's case, with minutes of evidence. 1834 (483) xi. 223.
*—Report from Select Committee on Mr. Goldsworthy Gurney's case, with minutes of evidence. 1835 (373) xiii. 489.
Favier (M.) Essai sur les lois du mouvement de traction, et leur application au tracé des voies de communication. Paris. 1841. 8vo, pp. 172 and *tables*. *Patent Office Library*.
France: *Ministères de la Guerre et des Travaux Publics*. Expériences sur la tirage des voitures et sur les effets destructeurs qu'elles exercent sur les routes, exécutés en 1837 et 1838 par ordre de la Ministère de la Guerre, et en 1839 et 1841 par ordre de la Ministère des Travaux Publics. Paris. 1842.
U.K. Govt. Report from the Select Committee on Locomotives on roads, with the proceedings of the committee, minutes of evidence, appendix, and index. 1873 (312) xvi. 477.
Taylor (J. H.) Extraordinary traffic on highways by traction engines and the loads they draw. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. 8, pp. 79–86. 1882.
Burton (J. H.) Traction engines and their effect on roads and buildings. Association of Municipal and Sanitary Engineers and Surveyors, Proceedings, Vol. 16, pp. 229–233. 1890.
Hering. Roads: resistance to traction. *Engineering Record*, Jan. 25, 1890.
Codrington (T.) On some experiments with model wheels and road coatings. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 20, pp. 228–236, *illus*. *Surveyor* July 5, *illus*. 1894.

*U.S.A. *Office of Road Inquiry.* Bulletin 12. Wide tires: laws of certain states relating to their use, and other pertinent information, compiled by Roy Stone. Washington. 1895. 8vo, pp. 16.

Collins (A. E.) Street construction for medium traffic. Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 22, pp. 268–283. *Surveyor*, July 10, 1896.

*U.K. Govt. Report from the Select Committee on traction engines on roads; with the proceedings, evidence, appendix, and index. 1896 (272) xiv. 13.

*U.S.A. *Office of Road Inquiry.* Bulletin 20. Traction tests, by Samuel T. Neely. Washington. 1896. 8vo, pp. 22.

Conyngton (Thomas) Motor carriages and street paving. *Municipal Engineering*, April, 1899.

Ramsden (Richard) The usurpation of the roads. *Land Magazine*, Jan., 1899.

Walsh (George E.) Automobiles and city pavements. *Electrical Review*, Dec. 26, 1900.

Beaumont (W. W.) Wear of roads by horse haulage and motor traffic: *with discussion.* Association of Municipal and County Engineers and Surveyors, Proceedings, Vol. 27, pp. 254–265; summary in *Electrical Engineer*, July 12; *Surveyor*, July 5, 1901.

Diplock (Bramah Joseph) A new system of heavy goods transport on common roads. 1902. 8vo, *illus.*

Resistance of road vehicles to traction. *Surveyor*, Sept. 18, 1903.

Road maintenance difficulties (traffic). *Surveyor*, Aug. 7, 1903.

Street traffic. *Surveyor*, Sept. 18, 1903.

*Jeffreys (W. Rees) The motor problem: A road problem. Read at the Automobile Club on March 12. 1903. 4to, pp. 16, *maps.*

Greasy roads and side-slip. *Surveyor*, Nov. 4, 1904.

*Halstead (Marshal) Effect of motor-car traffic on dry roads. *U.S.A. Monthly Consular and Trade Reports*, Jan., 1904.

*The motor roads of the future. *U.S.A. Monthly Consular and Trade Reports*, March, 1904.

*Highways—nuisance caused by locomotives. *Municipal Journal*, Nov. 24, 1905.

*Motor cars and roads. *Municipal Journal*, May 12, 19, Sept. 1, Nov. 17, 1905.

Motor traffic on highways: conference at Horsham. *Surveyor*, Sept. 8, 1905.

Motor vehicles and roads. *Surveyor*, June 2, 9, 1905.

*Road traffic vibration. *Municipal Journal*, March 10, 1905.

*Traction engines on roads. *Municipal Journal*, June 9, 1905.

The wheels of locomotives on highways: a new order of the Local Government Board. *Surveyor*, Sept. 1, 1905.

What roads ought to be. Summary of paper by Sir J. Macdonald before Scottish Society of Arts. *Surveyor*, Mar. 31, 1905.

Cooley (H.) Road-traffic vibration: its effect on wood pavements. 1905. 8vo, pp. 46. 8767.a.41.

Cooper (C. H.) Adaptation of highways for modern traffic: *with discussion.* Association of Municipal and County Engineers, Proceedings, Vol. 31, pp. 383–390; *Surveyor*, July 7, 1905.

Martin (William H. Blyth) Damage to roads in burghs from extraordinary traffic. Association of Burgh Officials of Scotland, *Transactions* at Annual Meeting; summary in *Surveyor*, Sept. 8, 1905.

Weeks (A. B.) Rolling road for horses and wagons. *Scientific American*, March 11, 1905.

Intensity of pressure of wheels on the road. *Scientific American Supplement*, May 19, 1906.

Motor vehicles and the camber of roads. *Surveyor*, Feb. 16, 1906.
Roads for automobiles. *Scientific American*, Nov. 3, 1906.
***Royal Automobile Club** and **Motor Union.** Motor movement: statistical and other information collected for the Royal Commission on Motor Cars . . . 1906. 4to, pp. 94.
Adaptation of roads for modern traffic: interview with Dr. Guglielminetti. *Surveyor*, Nov. 29, 1907.
Motor-car traffic and the life of roads. *Surveyor*, Feb. 15, 1907.
*Motors and main roads. *Municipal Journal*, Aug. 16; *Surveyor*, Nov. 15, 1907.
Crompton (R. E.) On the design of modern motor vehicles in relation to the existing roads. *Surveyor*, April 12; summary in **Municipal Journal*, May 24, 31, 1907.
Mackenzie (Douglas) How far skidding is due to road surfaces, construction and materials. *Surveyor*, April 19, *suppl.*; extracts in **Municipal Journal*, May 17, 1907.
Motor Union. Report of Fuel Committee. 1907. 8767.l.27.
Newton (E. B. B.) What could be done to reduce skidding on city road surfaces? *Surveyor*, April 19, *suppl.*; summary in **Municipal Journal*, May 10, 1907.
Smith (E. Shrapnell) How far is skidding due to the lack of proper street cleansing? *Surveyor*, April 19, *suppl.*; summary in **Municipal Journal*, May 3, 1907.
The effect of motors on macadam roads. *Scientific American Supplement*, Nov. 14, 1908.
The motor-car problem. *Nation*, Sept. 3, 1908.
Crompton (R. E.) Improvements in self-propelled vehicles for the reduction of road wear. *Surveyor*, Nov. 20, 1908.
Mackenzie (Douglas) The effect of motors on roads; *and* notes on wheel diameters, by R. E. Crompton. *Surveyor*, June 5, 1908, *illus.*
Maybury (H. P) Roads for heavy traffic. *Engineering Record*, Nov. 26, 1908.
Page (Logan Waller) Effect of motors on macadam roads. *Engineering Record*, Sept. 26, 1908.
—The effect of modern traffic on broken stone roads. *Surveyor*, Nov. 13, 1908.
Richardson (Clifford) The maintenance of highways in view of the advent of the motor vehicle. *Engineering Record*, Oct. 17, 1908.
Rolls (C. S.) Effect of the road surface on vehicles. *Surveyor*, Dec. 4, 1908.
Taylor (W. J.) The effect of motors on roads. *Surveyor*, May 15, 1908.
—Wear and tear of roads. *Surveyor*, Nov. 13, 1908.
Thomas (R. J.) Effect of traction engine and heavy motor traffic upon road foundations. *Surveyor*, Nov. 13, 1908.
The highway and the automobile. *Scientific American*, March 27, 1909.
Methods of preventing damage to road surfaces by high-speed motor cars. *Engineering-Contracting*, Feb. 10, 1909.
Motor roads and the public. *Nation*, Oct. 2, 1909.
The public and the motor car. *Quarterly Review*, Jan. 1909.
Ebenhof (Alfred Ritter Weber von) Die Anpassung der Strassen an die Automobile. *Oesterreichische Wochenschrift für die Oeffentliche Baudienst*, June 26, 1909.
Macdonald (J. A. H.) The road and the power-vehicle. *Living Age*, Sept. 4, 1909.
Schofield (W. H.) Extraordinary traffic and heavy weights on roads. *Surveyor*, May 28, 1909.
Taylor (W. J.) Wear and tear of motor traffic on roads. *Surveyor*, May 7, 1909.

Tipper (Henry) The cost of adapting macadam roads to automobile traffic. *Municipal Engineering*, Sept., 1909.
The other half of the automobile. *Automobile*, April 21, 1910, *illus.*
The public and the motor car. *Living Age*, March 27, 1910.
The roads and motor traffic. *Sanitary Record*, Vol. 45, 1910.
Roads and vehicles. *Contract Journal*, Oct. 26, 1910.
***Arnold (E. L.)** Motorists and the Roman Road. *Fortnightly Review*, Sept., 1910.
Boulnois (H. Percy) Practical road engineering for the new traffic requirements, 1910. 11½in., pp. 158, *illus.* 8767.m.39.
Crompton (R. E.) Roads and vehicles. *Surveyor*, April 15, 1910.
Fulweiler (W. H.) Destructive action of motor traffic on road surfaces and methods of construction to prevent it. Engineers' Club of Philadelphia, *Proceedings*, April, 1910, *illus.*
Guillet (C.) Le problème de la route: essai d'un nouveau mode de confection des chaussées empierrées pour répondre aux besoins de la circulation automobile. *Génie Civil*, Dec. 31, 1910, *illus.*
Jelf (Ernest A.) Traffic extraordinary. *Law Times*, Oct. 22, 29, 1910.
Mecredy (R. J.) The road question from the user's point of view (paper read at the Irish Road Congress). *Sanitary Record*, May 12, 1910.
Page (Logan Waller) Effect of motor and horse-drawn vehicles on roads. *Engineering Record*, Feb. 26, 1910.
—The motor car and the road. *Scientific American*, Jan. 15, 1910, *illus.*
Petot (A.) Relations dynamiques entre la voiture et la route. *Technique Moderne*, June, 1910.
Sohier (William D.) The automobile and the roads. *New England Magazine*, March, 1910.
Good roads and the motor truck. *Scientific American*, July 15, 1911.
Wheel loads and tyre widths (in England). *Surveyor*, April 21, 1911.
Blanchard (Arthur H.) and **Drowne (Henry B.)** English and American highway traffic regulations. *Engineering Record*, Jan. 21, 1911.
***Cardiganshire**: *County Council.* Report on the causes of wear and tear of roads—rain and motor traffic. *Minutes*, Feb., 1911, p. 15.
Dayton (T. S.) The car and the highway. *Harper's Weekly*, June 3, 1911.
Drowne (Henry B.) The relation between modern traffic and the alignment and profile in highway design. *Engineering-Contracting*, Feb. 8, *Canadian Engineer*, July 13, 1911.
Page (Logan Waller) Automobile road building. *Automobile*, Jan. 12, 1911.
Ryves (Reginald) Road improvement and traffic requirements. *Surveyor*, Sept. 8, 1911, *illus.*
Damage to roads by motor 'buses; conference of local authorities. *Surveyor*, Sept. 27, 1912.
Motor-car traffic and main road crusts. *Surveyor*, May 24, 1912.
Hart (Victor) The economy of good roads. *Horseless Age*, May 8 *et seq.*, 1912.
Marks (A. W.) Foreign road-making lessons; new problems created by the automobile. *Collier's Magazine, suppl.* to Jan. 6, 1912.
Maxwell (W. H.) The highways and the new conditions of traffic. *Cassier's Magazine*, Oct., 1912.
Page (Logan Waller) Our highways and the motor car. *Collier's Magazine, suppl.* to Jan. 6, 1912.
—Preserving good roads; the utilization of motor-truck trains. *Scientific American*, April 6, 1912.
Smith (Jonah Walker) The improvement of highways to meet modern conditions of traffic. Institution of Civil Engineers, No. 3939. 1912.

References are to pages.

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